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CYPRUS

ANNUAL

MEDICAL & SANITARY REPORT

1936.

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NICOSIA:
Printed at the Cyprus Government Printing Office
1937

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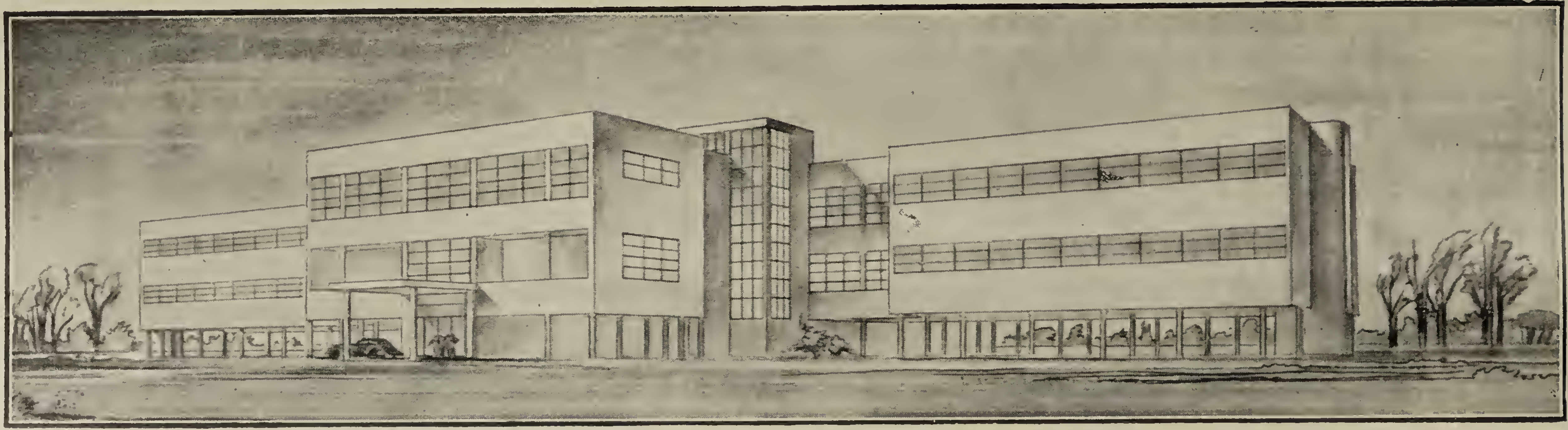

Elevation of Nicosia's New General Hospital now under Construction.

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1937

MEDICAL DEPARTMENT,
NICOSIA, CYPRUS,
15th September, 1937.

Sir,

I have the honour to submit for the information of His Excellency the Governor, and for transmission to the Right Honourable the Secretary of State, the Medical Report on the Health and Sanitary Conditions of Cyprus, for the year 1936, *together with the returns, etc., appended thereto.*

That this Report is late has been due to the Epidemic of Cerebro-Spinal Meningitis which continued during January, February, March and April of this year. As a result the District reports were delayed and until July I was quite unable to correlate the material only then available.

In conclusion I wish to record my thanks to the Medical Department Staff, both professional and lay, for their loyal support and work during a trying 12 *months.*

I have the honour to be,
Sir,
Your obedient Servant,

E. A. NEFF,
Director of Medical Services.

The Honourable
The Colonial Secretary,
Cyprus.

Annex
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Annual Medical and Sanitary Report for the Year, 1936.

GENERAL REMARKS.

REORGANIZATION.

The scheme of reorganization referred to in last year's Report as having been submitted to Government was brought into effect as from 1st February and is given in full detail elsewhere (Appendix A). The changes enumerated therein have been well received especially by the private practitioners of Cyprus who had long felt that in fairness to themselves the private practice of Government Medical Officers should be curtailed. With this I was in agreement considering that many practitioners derive from their practice a net income which in most countries would not be considered sufficient to provide the essentials of life. At the same time Cypriot Government Medical Officers, had to be recompensed for the loss of the bulk of their private work and so their salaries were increased and they all were given travelling allowances sufficient in amount to amply care for their District Schedule of work.

The British Officers on arrival have taken their places as District Medical Officers-in-Charge of the Administrative Districts and through their constant activity have lessened the burden of central administration to a very considerable extent indeed. Their appointment has led to efficiency and smoothness in administrative hospital and rural dispensary control and is the greatest single factor in the success of this reorganization.

The scheme as given as an Appendix is not the original draft but has been amended to include the changes resulting from correspondence with Government and the Right Honourable the Secretary of State for the Colonies.

BUREAU OF MALARIA CONTROL.

As foreshadowed last year, the International Health Division of the Rockefeller Foundation decided, following Dr. M. A. Barber's survey and report, to send staff and co-operate with the Department in malaria control work here. During February Dr. W. K. Stratman-Thomas arrived to take charge of Rockefeller Foundation activities accompanied by Dr. Barber who had previously left for temporary work in Greece. These staff members were joined somewhat later by Mr. J. C. Carter, Sanitary Engineer, and intensive survey work at once started. Office and laboratory space was first given to them at Medical Headquarters, but this later was found to be insufficient and as a result a spacious modern building was taken by the Foundation on lease and all staff and equipment moved there. This unit is amply budgeted and will eventually, I am convinced, succeed to a great extent in controlling malaria, our major health problem.

Particulars of the survey work accomplished during the year are included as Appendix E.

CEREBRO-SPINAL MENINGITIS.

This disease made its appearance on the Island during July. The first case notified from Famagusta District, was followed by two cases in Paphos and then several cases in Nicosia District during November and December. By 31st December 38 cases had been isolated and treated and it was unfortunately evident that a considerable epidemic would result as the cold season developed. The whole staff of the Medical Department had necessarily to be re-arranged to meet this emergency and certain other routine activities temporarily abandoned. By the end of the year preparations had been completed and that this was a necessary procedure is shown by the fact that by the end of April, 1937, 752 cases had been treated and several thousands of contacts isolated and routinely smeared and examined. This epidemic will be reported in detail somewhat later when case reports and other details are available from all districts.

With the exception of the above, health conditions were satisfactory and much as usual on the Island.

MUKHTARS' CERTIFICATES.

The new system of Mukhtars' Certificates—briefly referred to in last year's Report—which required most of the 130,546 holders of paupers certificates (which entitled them to free treatment) to pay fees ranging from 1*p.* to 6*p.* for out-patient and in-patient treatment, resulted in £1,933. 16*s.* 6*p.* being paid into revenue and to Aided hospitals. No complaints, that I am aware of, resulted. Particulars of this income are as follows :—

Government Hospitals and Dispensaries.

From out-patients	£1,272. 1*s.* 0*p.*
From in-patients	£411. 14*s.* 7½*p.*

Aided Hospitals.

From in-patients	£250. 1*s.* 7½*p.*

Government Revenue thus benefited to the extent of £1,683. 15*s.* 7½*p.* and local Hospital Committees received £250. 1*s.* 7½*p.*

The above, together with consultation and other medical fees paid into revenue brought the total revenue to £5,308. 9*s.* 7*p.* as compared to £2,872. 9*s.* 4*p.* for the previous year.

NICOSIA JUBILEE HOSPITAL.

Work of construction on the new hospital was started during the year and the administrative section, the theatres, anaesthetising, sterilizing and instrument rooms were almost completed as the year ended. Owing to the increase in cost of steel and all building material the expenditure necessary for completion will be considerably over that originally voted. The building, an illustration of which is reproduced as a frontispiece to this Report, is of the re-inforced concrete and will provide for 104 acute cases in modern public wards and for 18, 1st and 2nd class cases in private accommodation. This hospital will also provide amply for X-Ray installation—both diagnostic and therapy, electro and radium therapeutics and the bacteriological and pathological laboratories in a special section. It is expected that it will be completed late in 1938 or early in 1939 and this event will be eagerly awaited. The work at Government hospitals, both surgical and medical, has increased to such an extent that the beds now available are never empty and cases requiring admission have to be refused daily.

NEW SANATORIUM AND TUBERCULOSIS.

The funds collected during His late Majesty's Silver Jubilee for the construction of a modern Sanatorium for the care and treatment of early cases of tuberculosis has been augmented by a gift of £10,000 from the Committee administrating the Colonial Development Fund so that something just over £16,000 is now available for the purpose. There has been much local discussion about the site and in order to get a representative opinion His Excellency proposes to set up a committee under my chairmanship to tour the Island and if possible select a site with rather more space for exercise than the one already chosen. To find anything altogether and completely suitable is difficult, indeed, combining, as it must, an altitude of at least 3,000 feet, protection from the north, sufficient water, absence of malaria, availability to improved roads and sufficient flat land for exercise and extension. When the site is finally agreed upon, work of construction will at once be put in hand.

The local Anti-Tuberculosis League has made much progress during the year under review, and is now firmly established and is taking routine care of needy tuberculosis sufferers, quiescents and pre-tubercular children. The sale of seals amounted to £319. 16*s*. 4½*p*. during the year and other donations have kept the cash balance at something just over £1,000. The League is also responsible for the *Cyprus Public Health* which is being published monthly. This little magazine deals with the prevention of tuberculosis and 5,000 copies are distributed each month to schools, Mukhtars and others.

The National Association for the Prevention of Tuberculosis has taken a very real interest in this their only affiliated body which interest has taken very substantial form in that they first gave a cash donation of £100 to assist in establishing at Nicosia a Tuberculosis Dispensary on modern lines and later sent Dr. Noel D. Bardswell, M.V.O., F.R.C.P., and Nurse Commissioner Jays to us to estimate, in co-operation with my Department, the problem and advise as to the best means of combating it.

Dr. Bardswell is a well-known authority on the diagnosis, care and treatment of tuberculosis and has with Nurse Jays since his arrival been engaged in making an Island survey of the disease. In this work he has been assisted by the District Administrative Staff and by the various officers of my Department. It is yet too early to give the result of his work, but one can say that, while the disease is not as formidable and widespread as commonly supposed, still tuberculosis will be shown to be a Public Health problem of some importance and thanks to the National Association for the Prevention of Tuberculosis will eventually, I am convinced, be brought under control.

The accommodation at Athalassa Sanatorium being inadequate League's funds were utilized to erect there and equip a building to care for 14 additional male patients. This took care of male patients awaiting admission but left the same difficulty in respect of females. A local business man—Mr. M. C. Georgiades—to whom this was explained, at this point, very generously provided funds with which I was able to have constructed a pavilion for the accommodation of 8 female patients. These two buildings and a quicker turn-over of patients in the Sanatorium have completely eradicated the long formidable list of patients awaiting admission there.

It is now anticipated that control work will develop as finances permit on the following lines :—

(1) The early appointment of a full-time British Tuberculosis Officer to take over the work when the Officers from the National Association for the Prevention of Tuberculosis leave the Island.

(2) The establishment of Tuberculosis Dispensaries in Nicosia, Larnaca and Limassol.

(3) The appointment of Tuberculosis Nurses for Dispensary Nursing and follow-up work in the homes.

Before concluding the subject of Tuberculosis control I desire to record the generosity of Mr. D. N. Dimitriou, O.B.E., of Larnaca, who has given £3,000 to my Department for building, equipping and endowing to some extent a Tuberculosis Dispensary at Larnaca. Plans for this Dispensary have been prepared and the building will be under construction and completed during 1937.

The Trachoma Nurses—15 in number—were trained in the Government Hospital early in the year and later stationed at trachoma centres in the districts where incidence is highest—*i.e.* the Mesaoria plains. There they routinely each day carry out the treatment outlined by the Travelling Oculists and results of this continuous treatment are already being seen. I later hope to be able to increase their numbers somewhat. It is further my sincere hope that in the not too distant future I may augment a fund—a nucleus of which has been supplied by the Cyprus Civil Service Association—so that a travelling clinic staffed by an Oculist and a nurse and a driver-orderly may be made available to regularly and continuously visit the trachomatous areas not served by the centres. Trachoma as shown by figures now available through notification cards (since 1936) is a major Public Health problem in Cyprus and a serious effort must be made to bring it under control.

Typhoid Fever is increasing on the Island and so gradually and persistently that it is the cause of great worry to me. The absence of latrines in rural areas is undoubtedly the causative factor as shown by the very numerous epidemics I have been called upon to investigate and control since coming to the Island nearly three years ago. The history and control are always the same. An explosive type of epidemic occurs in a village at the time fly-breeding is at its maximum. Prompt measures, which include the isolation of all patients in a temporary hospital, the proper disposal of patients' excreta and a general burial of all human excreta found in back-yards of houses have an immediate effect, and the epidemic stops forthwith.

The Rockefeller Foundation, at my request, have now agreed to sanitate a village during 1937 by installing bore-hole latrines for every family and I am of the opinion that when other neighbouring villages see that the Typhoid rate of the sanitated village drops, that the village authorities will follow their neighbours' lead and gradually latrines will be the rule in all village houses rather than the exception.

When Cerebro-Spinal Meningitis made its appearance amongst the miners of the Cyprus Mines Corporation operating at Mavrovouni and Skouriotissa, housing conditions were carefully examined and it was found that owing to the increased world demand for copper and pyrites extra labour had been employed and that sufficient housing was not available. The question was discussed in detail with the Resident Director of the Cyprus Mines Corporation and as a result a building programme of magnitude has been prepared for 1937 and on completion neither overcrowding nor bad sanitation will be present in so far as their buildings—new or old—are concerned.

To improve housing generally, especially in an impoverished rural population group such as this, is I know not quickly possible but to prevent epidemic crowd diseases appearing again I know our aim must be to provide better ventilation in village houses and to enact simple legislation whereby the owner of the building is to be held responsible for overcrowding on his premises.

One of the chief events of the year in the way of Preventive Medicine has been the passing of the Public Health Village Law. This Law gives power for the strict control of village sanitation and provides amongst many other things for the establishment and regulation of village markets, slaughter-houses, removal of night-soil and manure. For expenses in connection with the above the Village Health Commission is allowed, under the Law, to impose an annual rate upon each village householder. This legislation has been badly needed and marks a very distinct advance in rural health control.

The other important Law enacted during the year is the Medical Registration Law. This Law provides for a Medical Council of five members including as Chairman the Director of Medical Services, *ex officio*, two Medical Officers in the public service of the Colony appointed by the Governor and two registered medical practitioners in private practice also appointed by His Excellency. Necessary qualifications and requisites for registration have been strengthened considerably as, amongst other things, the applicant must have had following graduation, at least 18 months' experience as a resident house surgeon in a general hospital and must have resided in Cyprus for a period of five years within the last fifteen years immediately preceding the date of his application to be registered. This residential clause was inserted to prevent an influx of foreign practitioners. Applicants holding a licence, degree or diploma entitling them to be registered as medical practitioners in the United Kingdom are entitled to be registered forthwith.

Powers are given to fix a quota if the profession tends to become crowded and a special section has been included prohibiting advertising in any form.

I. ADMINISTRATION.

(A) ESTABLISHMENT (INCLUDING VACANCIES), ACTING APPOINTMENTS AND PROMOTIONS.

The establishment of the Medical Department, Cyprus, consisted, during 1936 of :—

MEDICAL STAFF.

1 Director of Medical Services.
1 Specialist (Surgeon).
1 Government Pathologist.
1 Government Chemist.
1 Medical Superintendent, Mental Hospital.
3 Honorary Ophthalmic Surgeons.
5 Honorary Dentists.
3 Travelling Ophthalmic Surgeons.
6 District Medical Officers.
3 Medical Officers, 1st Grade.
16 Medical Officers, 2nd Grade.
1 School Medical Officer.
3 District Surgeons.

ENGLISH NURSING STAFF.

4 Matrons.
7 Nursing Sisters.

OTHER MEDICAL AND SANITARY STAFF.

3 Health Officers.
1 Chief Sanitary Inspector.
6 District Sanitary Inspectors.
7 Sanitary Inspectors, 1st Grade.
17 Sanitary Inspectors, 2nd Grade.
29 Compounders.
1 Housekeeper, Nicosia General Hospital.
6 Staff Nurses.
8 Male Orderlies.
20 Probationer Nurses.
1 Head Warder, Mental Hospital.
14 Mental Hospital Attendants.
3 Guards, Leper Farm.
1 Assistant to Chemist.
1 Assistant to Pathologist.
1 Government Midwife.

CLERICAL STAFF.

1 Clerk, 1st Grade.
1 Clerk, 2nd Grade.
5 Clerks, 4th Grade.

There are, in addition to the above, Cooks, Servants, Kitchen-boys, House-maids, Ward-maids, Charwomen, Sanitary Labourers, Attendants, Messengers, etc., etc.

Note.—For names of the principal appointments, see Appendix L.

PRINCIPAL ACTING APPOINTMENTS.

Name	*Acting Appointment*	*From*	*To*
Dr. G. M. Gibbon, District Medical Officer	*Specialist (Surgeon)*	20. 7.36	9. 8.36
do.	*Pathologist*	15. 4.36	23. 9.36
Dr. W. J. E. Phillips, District Medical Officer	*Pathologist*	1. 2.36	14. 4.36
Mr. L. Ch. Haralambides, Assistant to Chemist	*Chemist*	1. 1.36	8. 1.36
do.	*Chemist*	7.11.36	31.12.36

NEW APPOINTMENTS.

Name	*Appointment*	*Date*
Dr. D. C. Ogilvie	*District Medical Officer*	11th Sept., 1936
Dr. C. E. Bevan	*do.*	31st Oct., 1936
Dr. R. A. Porter	*do.*	27th Nov., 1936
Dr. H. B. A. Macfie	*do.*	4th Dec., 1936
Dr. J. C. Tull	*Pathologist*	12th Sept., 1936
Dr. M. Theodoulou	*Medical Officer*, 2nd Grade	1st May, 1936
Dr. M. Raouf	*Honorary Physician*	6th April, 1936
Miss M. H. Sizer	*Nursing Sister*	28th Feb., 1936
Miss M. Nicholls	*do.*	28th March, 1936
Miss T. M. Price	*do.*	9th April, 1936
Miss M. M. Milnes	*do.*	5th June, 1936
Miss Anne Hodgson	*do.*	4th Dec., 1936
Mr. Ch. M. Ioannides	*Compounder*, 4th Grade	11th Sept. 1936

PROMOTIONS.

Nil.

RETIREMENTS, RESIGNATIONS AND TRANSFERS.

Name	*Post*	*Date*
Dr. R. Stuppel	*District Medical Officer*	9th May, 1936
Dr. M. Gosden	*Bacteriologist*	21st March, 1936
Dr. G. Atrides	*Medical Officer*, 2nd Grade	1st Feb., 1936
Dr. P. A. Anastasiades	*do.*	do.
Dr. A. A. Josephakis	*do.*	do.
Dr. C. Myrianthopoulos	*do.*	9th Feb., 1936
Miss M. C. Atkins	*Nursing Sister*	12th April, 1936
Miss E. Bishopp	*do.*	30th May, 1936
Miss D. M. Drew	*do.*	15th Sept., 1936
Miss H. M. Morsley	*do.*	2nd March, 1936
Mr. M. A. Kyriakides	*Compounder*, 4th Grade	30th Aug., 1936
Mr. S. Constantinou	*Guard, Leper Farm*	1st April, 1936
Mrs. A. Efstathiou	*Female Attendant, Mental Hospital*	31st Dec., 1936

DEATHS.

Nil.

(B) LIST OF LAWS, ORDERS, REGULATIONS, ETC., AFFECTING PUBLIC HEALTH ENACTED DURING THE YEAR.

The following Laws, Regulations and Orders were passed during the year :—

LAWS.

No. 16 of 1936.—A Law to regulate and control Immigration.

No. 19 of 1936.—A Law for the better promotion of Public Health in Villages.

No. 22 of 1936.—A Law to consolidate and amend the Law relating to Medical Registration.

No. 23 of 1936.—A Law to amend the Law relating to the Registration of Dentists.

No. 24 of 1936.—A Law to amend the Law relating to the regulation of the practice of Midwifery.

No. 42 of 1936.—A Law to repeal the Nursing Sisters Pensions Law, 1928.

REGULATIONS, ORDERS, ETC.

No. of Notice in Gazette	*Subject*
568	Regulations made by the Troödos Public Health Board under the Troödos Public Health Laws, 1920 and 1930.
1152	Regulations made under the Immigration Law, 1936.
49	Order in Council No. 1674, made under the Quarantine Law, 1932.
956	Order in Council No. 1711, made under the Public Health (Summer Resorts) Laws, 1928 and 1934.
1073	Order in Council No. 1715, made under the Medical Registration Law, 1936.

New Burial Grounds were ordered for the following villages :—

No. of Notice in Gazette	*Subject*	*No. of Notice in Gazette*	*Subject*
22	Ayios Dhimitrios	283	Pomos.
104	Ayios Theodhoros (Larnaca).	411	Kalokhorio (Larnaca).
124	Pano and Kato Arodhes.	1075	Kapedhes.

Bye-laws, touching health matters, were made under the Municipal Corporations Law by the following Municipalities :—

No. of Notice in Gazette	*Municipality*	*No. of Notice in Gazette*	*Municipality*
1105	Larnaca.	445	Lefka.

The Public Health (Villages) Law was applied to the following villages :—

No. of Notice in Gazette	*Village*	*No. of Notice. in Gazette*	*Village*
4	Mazotos.	171	Galata.
5	Anaphotia.	187	Paliouriotissa.
5	Kalokhorio (Larnaca).	205	Galini.
5	Kiti.	432	Kondemenos.
5	Kophinou.	481	Pano Dheftera.
5	Mari.	530	Boghaz.
5	Kato Platres.	609	Kalokhorio (Lefka).
20	Platanistasa.	635	Episkopi.
102	Kondea.		

(c) FINANCIAL.

The total expenditure of the Medical Department was :—

	1933	1934	1935	1936
Personal Emoluments	£22,793 13 6	£22,097 0 1	£22,950 0 2	£22,835 19 5
Other Charges	26,105 0 8	27 557 4 0	29,478 9 2	30,719 1 0
Total	£48,898 14 5	£49,654 4 1	£52,436 9 4	£53,555 0 5

As compared with the total expenditure of the Island during 1936, £761,968. 18*s.* 6*p.*, this equals 7.03%.

The total revenue of the Medical and Sanitary Department, as shown below, amounted to £5,308. 9*s.* 7*p.*

REVENUE.	£	*s.*	*p.*
1. Sale of Medicines	726	9	8
2. Hospital Receipts	1,917	7	5
3. Other	1,515	19	0
4. Analytical and Bacteriological fees	101	3	3
5. Registrations of Diplomas	152	16	0
6. Quarantine Dues and Health Certificates	894	14	0
Total	£5,308	9	7

(D) MEDICAL STORES.

Satisfactory work continues in this important department. The position of these stores on the ground floor of the central administrative block leaves much to be desired and so a comprehensive plan to increase space, provide better light and ventilation and facilitate administrative control has been submitted to Government. The work will, I have reason to believe, be put in hand, during 1938 and will result in increased efficiency with smaller effort. Working of Headquarters' Medical Stores during the year 1936 :—

	£	s.	p.
Value of stock on 1st January, 1936	£2,841	11	1
Bought during 1936	4,894	1	0
	£7,735	12	1
Value of stock on 31st December, 1936	£2,625	11	1
Value of stock issued equals	£5,110	1	0

II. PUBLIC HEALTH.

(A) GENERAL REMARKS.

With the exception of meningitis, malaria and typhoid fever, general health conditions in the Island were satisfactory. Malaria not being a notifiable disease it is not possible to measure accurately the actual extent of its incidence throughout the Island. Records kept by the Government Medical Officers and institutions show that 12,779 cases of this disease were seen during the year as compared with 17,917 cases reported in 1935.

Patients seen at hospitals and rural dispensaries during the year numbered 185,336 made up of 93,396 out-patients, 6,139 in-patients, 2,720 new cases at the Venereal Diseases Clinics, 231 at the Mental Hospital and 32,719 examined by the Honorary Dentists.

(B) DISEASES.

Communicable diseases are dealt with under Section III.

Cancer.—252 out-patients and 195 in-patients are recorded against 187 and 136 of the previous year. (For full details see Appendix B.)

Rheumatism.—The number of cases, among out-patients and in-patients has increased from 1,301 in 1935 to 3,072 in 1936 and from 69 to 116 respectively.

Eye Diseases.—15,000 cases, mostly trachoma, have been seen during the year. The constant routine carried out by the Travelling and Honorary Oculists and previously reported upon has been well maintained and with the Trachoma Nurses carrying on continuous treatment better treatment results are being observed. Propaganda in the form of lectures and cinema demonstrations continues.

Wounds.—A considerable increase of cases as a result of cutting and stabbing instruments was observed during the year. 2,918 cases were treated; of these 63% are males.

Venereal Diseases.—2,720 new cases attended for treatment during the year as against 2,668 during 1935. The prophylactic stations referred to in last year's Report are greatly utilized by the public, 65,833 treatments having been given there during the year under review.

The Municipality of Limassol built a new prophylactic station during the year. This building is carefully situated, provides a large waiting-room and plain cubicles easily kept clean, where patients are recorded by numbers and never by name. 23,660 attendances are recorded there during 1936. I sincerely trust that other municipalities will follow Limassol's lead and provide similar new accommodation.

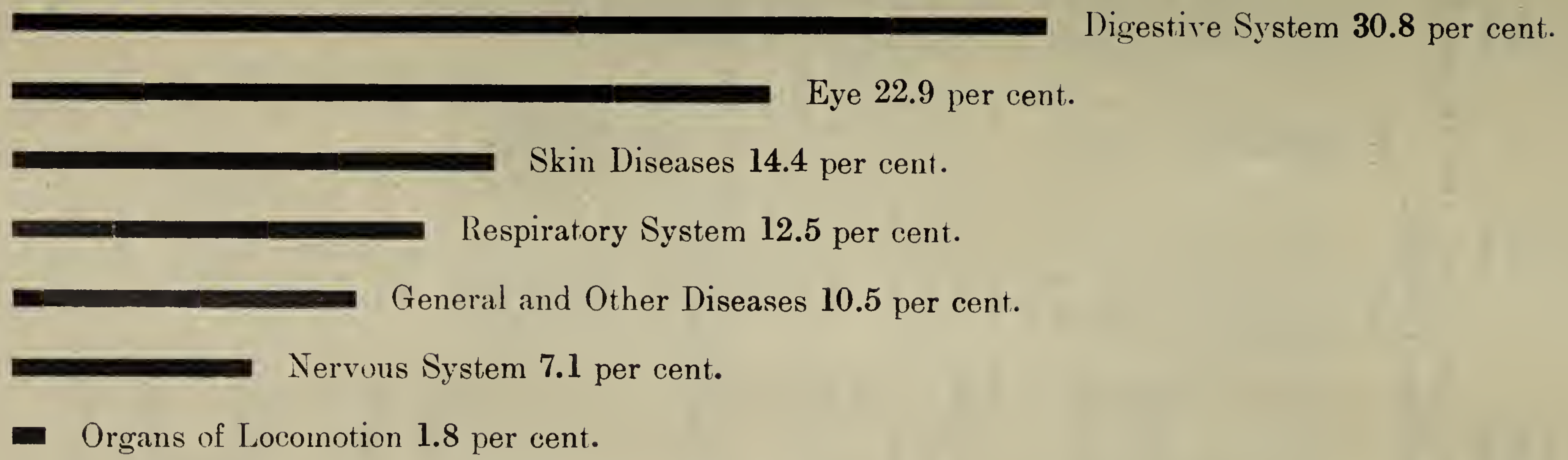
The Medical Officer-in-Charge of Venereal Diseases Clinics Report is included in the Appendices attached to this Report.

GENERAL SYSTEMIC AND COMMUNICABLE DISEASES TREATED IN GOVERNMENT INSTITUTIONS.

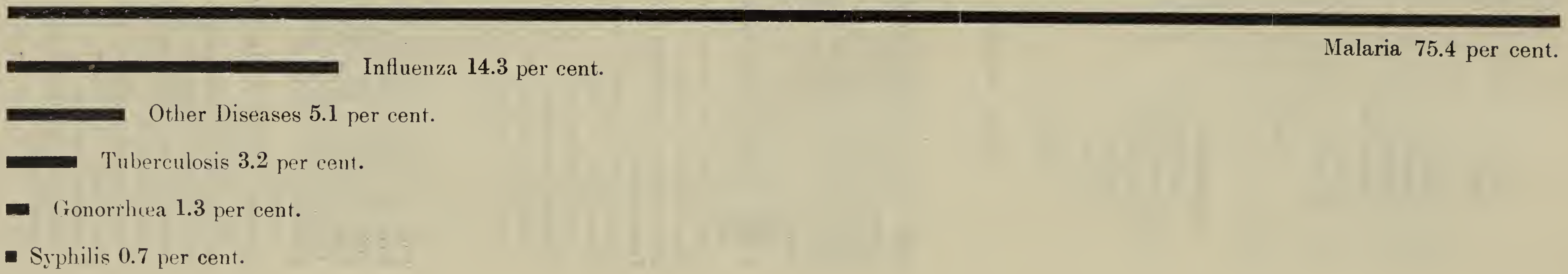
TOTAL CASES (*a*) & (*b*) 99,535.

1936.

(a)—General Systemic Diseases



(b)—Communicable Diseases



(c) VITAL STATISTICS FOR 1936.

District	*Estimated Population on* 30.6.36	*Birth Rate per* 1,000	*Death Rate per* 1,000	*Infantile Mortality Figure*
Nicosia	118,409	32.9	11.9	87.0
Larnaca	45,977	32.1	11.1	90.6
Limassol	59,654	36.2	14.6	132.8
Famagusta	75,464	37.1	11.3	103.8
Paphos	44,514	35.2	15.8	132.5
Kyrenia	23,198	35.9	13.4	89.8
Total	367,216	34.3	12.4	105.2
FOR SIX PRINCIPAL TOWNS.				
Nicosia	26,312	27.0	12.4	68.3
Larnaca	12,960	25.0	14.8	113,8
Limassol	16,406	29.1	13.6	104.5
Famagusta	11,531	25.9	8.4	107.0
Paphos	4,724	18.4	13.5	114.9
Kyrenia	2,256	49.2	14.1	54.0
Total	74,189	27.1	12.6	87.2

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATE OF EUROPEAN OFFICERS.

	1933	1934	1935	1936
Total number of officials resident	101	102	96	114
Average number resident	89.7	86.6	86.3	76
Total number on sick list	33	30	33	23
Total number of days on sick list	425	219	227	203
Average daily number on sick list	1.1	0.6	0.6	0.5
Percentage of sick to average number resident	36.6	29.4	33.3	17.4
Average number of days on sick list for each patient	12.8	7.3	6.7	8.8
Average sick time to each resident	4.7	2.0	2.6	2.6
Total number invalided	1	—	—	—
Percentage of invaliding to total residents	0.9	—	—	—
Total deaths	—	2	1	—
Percentage of deaths to total residents	—	1.9	1.0	—
Percentage of deaths to total average number resident	—	2.3	1.1	—
Number of cases of sickness contracted away from residence	—	—	—	—

TABLE SHOWING SICK, INVALIDING AND DEATH RATE OF CYPRIOT OFFICIALS.

	1933	1934	1935	1936
Total number of officials resident	1,959	2,025	1,847	1,836
Average number resident	1,953	2,016	1,842	1,780
Total number on sick list	1,687	1,671	1,154	1,058
Total number of days on sick list	6,592	7,671	6,814	5,642
Average daily number on sick list	18	19.5	18.6	15.7
Percentage of sick to average number resident	86.1	82.8	62.6	77.0
Average number of days on sick list for each patient	3.9	4.2	5.9	5.3
Average sick time to each resident	3.3	3.5	3.6	3.1
Total number invalided	4	21	23	20
Percentage of invalidings to total resident	0.2	1.0	1.2	1.1
Total deaths	5	5	4	12
Percentage of deaths of total resident	0.2	0.2	0.2	0.6
Percentage of deaths to total average number resident	0.2	0.2	0.2	0.6
Number of cases of sickness contracted away from residence	—	—	—	—

III. HYGIENE AND SANITATION.

(A) GENERAL REVIEW OF WORK DONE AND PROGRESS MADE.

(I) Administration.

(*a*) *General.*—The appointment of three new British District Medical Officers and one more Cypriot doctor as Health Officer has strengthened the Medical and Health Staff considerably. These appointments were timely made as their services were much required during the recent epidemic of meningitis which has been the worst one that the Island has experienced since the epidemic of 1908–1910.

The co-operation between the Department and the Municipal Corporations, as well as with the important Mining Companies in respect of Public Health work is very satisfactory. I include the Annual Report of Limassol as an Appendix K.

(*b*) *Personnel.*—Mr. M. Aziz, the Chief Sanitary Inspector, proceeded for 18 days' study leave accompanying Dr. Barber, of the Rockefeller Foundation, on a tour of investigation of malaria in certain parts of Turkey, Syria, Palestine and Egypt.

The table subjoined gives the permanent staff employed on Hygiene and Sanitation.

	Health Officer	Chief Sanitary Inspector	District Sanitary Inspectors	Sanitary Inspectors, 1st Grade	Sanitary Inspectors, 2nd Grade	Quarantine Sanitary Inspectors	Govt. Midwives
Nicosia..	—	—	1	5	3	—	1
Larnaca	—	—	1	—	3	1	—
Limassol	—	—	1	—	5	1	—
Famagusta	—	—	1	—	4	1	—
Paphos..	—	—	1	1	2	—	—
Kyrenia	—	—	1	1	—	—	—
Colony..	1	1	—	—	—	—	—
Total	1	1	6	7	17	3	1

Besides the above staff, large numbers of temporary sanitary labourers are employed during the malaria season in dealing with rivers, wells and other collections of water.

Health Officer.—The two 2nd Grade Medical Officers referred to in last year's Report successfully obtained their degrees in Public Health and have received their appointments as Health Officers. With Dr. C. S. Markides, Senior Health Officer, stationed in Nicosia, three such officers are available for duty throughout the Island.

Owing to the epidemic of Cerebro-Spinal Meningitis all three officers were fully occupied with duties in the epidemic areas and have been doing invaluable work with patients and contacts. They later will be stationed for duty in the districts as foreshadowed last year.

(II) Communicable Diseases.

(*a*) *Insect-borne Diseases.*

Malaria.—There was a decrease in the incidence of malaria during the year. The number of cases reported was 12,779 as compared with 17,917 in 1935. The percentage of malaria cases was 75.4% of the combined out-patients and in-patients suffering from communicable diseases during 1936.

Thanks to the work of the International Health Division of the Rockefeller Foundation complete surveys of the marshes near Akrotiri and Syrianokhori have been carried out. Both these areas are responsible for intensive *A. elutus* breeding which can not be effectively controlled by palliative means. It is hoped that with the help of the Foundation the Akrotiri marsh, which is one of the most malarious areas in the Island, will, in the course of a few years, become free of malaria while extensive waste land will be brought under cultivation.

The main difficulty in malaria control, however, is not the *A. elutus* breeding marshes, for which methods of drainage have been thoroughly worked out in other countries, but the streams and shallow pools of river beds which are responsible for *A. superpictus.* These breeding places are widely distributed and the problem of control is essentially one of rural malaria so that any method of control must necessarily be expensive. Experiments are being carried out with subsoil drainage in the river bed at Pyroi and the results so far are distinctly encouraging. A detailed account appears in the Report by the Foundation's staff in Cyprus.

Gas Oil, Paris Green, Quinine issued and used during the Year 1936.

Year 1936	Nicosia	Larnaca	Limassol	Famagusta	Paphos	Kyrenia	Total	Approximate Amount of Quinine in kilos
	kilos	kilos	kilos	kilos	kilos	kilos	kilos	
Gas Oil	17.272	4.572	12.104	9.144	8.128	6.096	57.316	
Paris Green ..	1313	44	300	52	260	72	2041	
Quinine Sulph...	28.95	10	19.3	4.5	16.25	5	84	
Tab. Quinine Sulph. Grs. II ..	11,000	2,000	1,000	6,500	500	2,500	23,500	3
Tab. Quinine Sulph. Grs. III	38,300	9,000	13,000	9,000	12,000	1,000	82,300	16
Tab. Quinine Sulph. Grs. V ..	113,370	31,000	35,500	32,500	29,500	8,500	249,870	81

DETAILED FIGURES OF PRINCIPAL ANTI-MALARIAL WORKS CARRIED OUT.

	Nicosia	*Larnaca*	*Limassol*	*Famagusta*	*Paphos*	*Kyrenia*
River beds, drains, streams, dealt with and new drains made, in miles	272	235	186	151	313	189
Wells, covered, filled, oiled and stocked with fish	14,118	10,532	6,378	4,072	7,060	5,689
Tanks stocked with fish	240	20	38	540	77	124
Premises inspected	197,068	137,849	233,959	352,358	119,850	78,003
Number of visits to villages by Sanitary Staff	7,335	1,215	2,540	2,786	1,528	675
Paris Green used in kg.	1,146	54	217	46½	415	76½
Gas Oil used, in tons	19	4	10	25	8	9

(*b*) *Communicable Diseases other than at* (*a*) *and* (*c*).

Smallpox and Vaccination.—No case of smallpox occurred during 1936.

The table below shows the number of vaccinations performed during the year under review:—

Number of vaccinations	11,939	
Primary vaccinations	..	9,857
Successful	6,933	
Unsuccessful	1,251	
Not accounted for	1,673	
Re-vaccinations	..	2,082
Successful	449	
Unsuccessful	1,408	
Not accounted for	225	

Plague.—Anti-rat measures are being carried out at the principal ports where 1,679 rats were trapped by the sanitary staff, and spleen smears were examined by the Government Pathologist. All such smears were negative.

The ports of Larnaca, Famagusta and Limassol are now equipped to carry out deratisation of ships up to 220 tons, and to issue deratisation cetificates.

For report on the species of fleas, etc., see Appendix C.

Pulmonary Tuberculosis.—There were 280 cases of this disease reported during the year as compared with 223 reported last year.

The following tables give details collected from notification cards but such is the fear of the disease that the numbers given by no means give a true picture of island incidence:—

PULMONARY TUBERCULOSIS.

By Sex and Age Groups.

Male	0–	5–	10–	15–	20–	25–	35–	45–	55–	65–	75–	N.R.	Total	Grand Total
Nicosia	1	—	1	3	11	24	10	5	3	—	—	2	60	
Larnaca	—	—	—	2	3	8	1	—	3	—	—	—	17	
Limassol	—	—	—	1	8	7	7	4	—	—	—	—	27	
Famagusta	—	—	2	2	3	6	5	4	4	1	—	—	27	
Paphos	—	—	—	2	4	9	2	3	—	—	—	1	21	
Kyrenia	—	—	1	1	4	2	1	1	1	—	—	1	12	
Total	1	—	4	11	33	56	26	17	11	1	—	4	164	
Female														
Nicosia	—	—	1	6	9	16	6	5	2	—	—	—	45	105
Larnaca	—	1	—	2	6	7	2	1	—	—	1	—	20	37
Limassol	—	—	1	7	2	2	2	—	1	—	—	—	15	42
Famagusta	—	1	1	6	2	3	5	3	—	—	—	—	21	48
Paphos	—	—	—	3	1	6	—	1	—	—	—	—	11	32
Kyrenia	—	—	1	—	1	1	—	1	—	—	—	—	4	16
Total	—	2	4	24	21	35	15	11	3	1	—	—	116	280
Grand total	1	2	8	35	54	91	41	28	14	2	—	4	280	

Cases by Race.

British	*Greek*	*Turk*	*Other*	*Total*
3	207	65	5	280

Cases per 10,000 of Population per District.

Nicosia	8.8	Paphos	7.1
Larnaca	8.0	Kyrenia	6.8
Limassol	7.0	Whole Colony	7.3
Famagusta	6.3		

DYSENTERY.

The total number of dysentery cases notified during the year 1936 was 51 as compared with 133 in 1935. Since 1930 this disease shows a steady decrease.

The following tables give details collected from the notification cards :—

By Sex and Age Group.

Male	0–	5–	10–	15–	20–	25–	35–	45–	55–	65–	75–	N.R.	Total	Grand Total
Nicosia	—	—	—	2	1	1	4	1	1	—	—	—	10	
Larnaca	—	1	—	—	—	—	—	1	1	1	—	—	4	
Limassol	2	—	1	1	—	—	—	—	—	—	—	—	4	
Famagusta	4	—	1	1	—	1	—	—	—	—	—	—	7	
Paphos	1	—	—	—	—	—	—	—	1	—	—	—	2	
Kyrenia	—	—	—	—	1	—	—	—	1	—	—	—	2	
Total	7	1	2	4	2	2	4	2	4	1	—	—	29	
Female														
Nicosia	1	1	—	—	2	1	—	1	1	—	—	1	8	18
Larnaca	—	—	—	—	—	1	1	—	—	1	—	—	3	7
Limassol	2	1	—	—	—	—	—	—	—	—	—	—	3	7
Famagusta	1	—	—	—	—	2	—	1	—	—	—	—	4	11
Paphos	—	—	—	—	2	—	—	1	1	—	—	—	4	6
Kyrenia	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Total	4	2	—	—	4	4	1	3	2	1	—	1	22	51
Grand total	11	3	2	4	6	6	5	5	6	2	—	1	51	

Cases by Race.

British	*Greek*	*Turk*	*Other*	*Total*
—	36	14	1	51

Cases per 10,000 of Population per District.

Nicosia	1.5	Paphos	1.4
Larnaca	1.3	Kyrenia	0.8
Limassol	1.1	Whole Colony	1.3
Famagusta	1.4		

Cases by Months.

January	1	May	1	September	5
February	—	June	8	October	5
March	1	July	5	November	14
April	1	August	7	December	3

DIPHTHERIA.

Sporadic cases of Diphtheria occurred during the year and 31 cases are reported.

Cases by Sex and Age Group.

	0–	5–	10–	15–	20–	25–	35–	Over 35	Total
Male	18	1	—	—	—	—	1	—	20
Female	6	4	1	—	—	—	—	—	11

Cases by Months.

January	4	May	2	September	6
February	2	June	—	October	4
March	2	July	—	November	2
April	5	August	3	December	1

Cases by Race.

British	*Greek*	*Turk*	*Other*	*Total*
—	25	5	1	31

TYPHOID.

There were 667 cases of Typhoid Fever reported during the year, an increase over the returns of 1935 and 1934 which were 548 and 411 respectively.

The following table shows details collected from notification cards :—

By Sex and Age Groups.

Male	0–	5–	10–	15–	20–	25–	35–	45–	55–	65–	75–	N.R.	Total	Grand Total
Nicosia	21	44	37	20	10	10	—	2	2	—	—	—	146	
Larnaca	10	7	4	5	6	1	1	1	1	—	—	—	36	
Limassol ..	3	7	12	8	3	7	3	—	—	—	—	—	43	
Famagusta ..	11	22	15	8	3	6	4	1	—	1	—	—	71	
Paphos	1	5	9	9	9	5	1	1	—	—	—	—	40	
Kyrenia	1	4	4	2	—	1	—	—	—	—	—	—	12	
Total ..	47	89	81	52	31	30	9	5	3	1	—	—	348	
Female														
Nicosia	20	48	29	20	19	16	7	—	3	—	—	1	164	310
Larnaca ..	5	5	3	3	—	5	1	—	—	—	—	—	22	58
Limassol ..	4	10	7	10	9	6	2	1	1	—	—	—	50	93
Famagusta ..	10	12	7	4	2	2	—	—	—	—	—	—	37	108
Paphos	1	5	5	4	3	6	4	1	1	—	—	—	30	70
Kyrenia	2	3	4	3	1	2	—	1	1	—	—	—	17	29
Total ..	42	83	55	44	34	37	14	3	6	—	—	1	320	667
Grand total ..	89	172	136	96	65	67	23	8	9	1	—	1	667	

Cases by Months.

January	87	May	31	September	112
February	51	June	56	October	48
March	18	July	82	November	58
April..	8	August	84	December	32

Cases by Race.

British	*Greek*	*Turk*	*Other*	*Total*
—	550	107	10	667

Cases per 10,000 *of Population per District.*

Nicosia	26.1	Paphos	15.7
Larnaca	12.6	Kyrenia	12.5
Limassol	15.7	Whole Colony	12.7
Famagusta	14.3		

Paratyphoid A.—Nine cases have been notified from the following Districts: Nicosia 6, Limassol 1, Famagusta 2.

Paratyphoid B.—One case is recorded from Nicosia District.

Trachoma.—8,963 cases were notified during 1936 as compared with 7,844 in 1935.

Undulant Fever.—No case reported.

(C) *Helminthic Diseases.*

Schistosomiasis.—No cases were reported nor have snails been readily found as heretofore. I am convinced that this disease has almost disappeared and certainly it is no longer a Public Health problem.

Ascaris.—197 out-patients are recorded this year, as compared with 229 in 1935.

(III) GENERAL MEASURES OF SANITATION.

Sewage Disposal.

The commonest form of sanitation in the towns is still a primitive form of pit latrine. New houses are often provided with water carriage system with small septic tanks but too often, on account of the shortage of water, an approved pattern of pit latrine seems to be the only solution. Outside the Nicosia Municipal area, District Medical Officers, or their staff, are required to approve the site for new buildings with special reference to the sanitation. Plans of the sanitary arrangements, however, are not submitted so that through lack of knowledge, money is often wasted on badly designed and unsatisfactory sanitation. It is a common fault to find that septic tanks are much too large for the amount of work they are required to do. By further legislation it should be possible to improve matters with benefit to contractors and landowners as well as to the health department. Work has now started on experimental boring for " bore-hole " latrines and the results so far have been quite encouraging.

Village sanitation has made little or no progress. This is more a question of education than of legislation ; for although it may be possible to get latrines constructed in villages it is quite another problem to insure that they will be used. It is common experience to find that villagers consider it unhealthy to have a latrine in the house, although an occasional enlightened villager may be found who, on his own initiative, has had a latrine built in his house. By propaganda and education it may be possible to encourage this attitude but progress will inevitably be slow.

Through the generous assistance of the International Health Division of the Rockefeller Foundation the sanitating of a large village will be undertaken in 1937.

(iv) School Hygiene.

The improvement reported last year continues, thanks to the Medical Officers and the activities of the Director of Education and his staff. The teachers are inclined to take a greater interest in the general sanitation of their schools and premises, latrines are being provided in increasing numbers and simple hygiene (personal and general) is being regularly taught.

The five Honorary Dentists visited 338 schools during the year under review, examined and treated 18,037 school children. Of these Dr. J. Marcellos visited 101 schools in the Nicosia–Kyrenia Districts and examined 6,549 pupils. His co-related results show 24% with sound teeth and 76% with defective teeth.

(v) Industrial Hygiene.

The development of mining and other industrial undertakings in the Colony is now becoming a Public Health problem of some importance. Although there are a number of industries employing several hundred persons there are only two Companies that provide their own hospitals and whole time Medical and Sanitary Staff.

In the mining area settlements of labourers and industrial immigrants spring up near the outskirts of existing villages. Dilapitated houses and stables are hurriedly patched up and rented to the labourers. Such houses are often damp and ill ventilated and without any sanitary arrangements. The result is that the original villages are often spoilt while the housing of the mine labourers is far from satisfactory. It is important, not only for the mining area, but for the Island as a whole, that the sanitation should be improved.

The Cyprus Mines Corporation and the Asbestos Mines provide, or are instrumental in providing, housing accommodation for their employees. Their new houses particularly are satisfactory and are properly sanitated, but certain improvements are necessary in some of the older ones and attempts are being made to carry them out.

An excellent Isolation Hospital has been built by the Cyprus Mines Corporation near their General Hospital at Pendayia and provided invaluable accommodation for patients during the recent meningitis epidemic.

(vi) Housing and Town Planning.

Although there is much improvement in the housing conditions in the principal towns, there is much to be done to correct the mistakes of the past when houses were subdivided and streets gradually narrowed owing to building without any plans for the future.

Overcrowding is a problem in the mining areas and surrounding villages. In order to appreciate this state of affairs some knowledge of the normal village housing conditions is necessary. A common type of village house has a single room about 30 to 40 feet long and some 10 to 12 feet wide and is built of mud bricks or rough stone. In the centre of the long wall is a wide doorway with double doors and a good sized unglazed shuttered window on each side while sometime a similar window is seen at one end. High up, near the eaves, there may be three or more ventilation holes, each about a foot square. These holes as well as the doors and windows are usually closed at night. The walls are often covered with white plaster although it may be somewhat blackened by smoke from a wood-fire. The floor is formed of stones slabs but may consist of bare earth which may be anything up to 9 inches below the general ground level. Such a single-roomed house may serve as kitchen, dining-room, bedroom and sitting-room for a large family. In the case of very poor families, animals may also live in one end of the room. As one goes up the social scale of the villager so the number of rooms of his house increases. First houses for the animals, then a kitchen, a wash-house and later perhaps a dining-room and possibly a room for guests are to be found. The rooms are often grouped round a rough courtyard and the general effect is light and airy. Sometimes a bedroom is built on the first floor and is approached by an outside stone stairway.

Although the census returns might show a house of six rooms more often than not the family still lives almost entirely in one room. The designs of these houses are traditional and probably go back for many centuries. Although according to Western European standards, Cyprus village houses may appear somewhat primitive, the majority are not really unhealthy when the climate and the life of the people are considered. When, however, some new industry is introduced, the problem becomes much more serious. Thus in the mining areas, new badly built houses spring up according to no set plan while the existing ones are converted to accommodate the growing population. As rapidly as buildings appear so do open spaces and proper ventilation diminish. The lack of sanitation is obviously a much more serious problem under these conditions than in the previously existing villages where the houses are often well spaced and the open country is not far distant. The open-air life of the villager is also a great advantage which is denied to many of those living under these new industrial conditions.

(B) MEASURES TAKEN TO SPREAD THE KNOWLEDGE OF HYGIENE AND SANITATION.

In addition to the Annual Health Exhibition, details of which are given below, the Department has arranged for addresses, lectures and cinema films in towns and villages to an aggregate attendance of 10,000.

Health Exhibition.

The Annual Baby Show and Health Exhibition, organized by this Department in co-operation with the Child Welfare Association of Nicosia, Larnaca, Famagusta, Paphos and Kyrenia, was held this year at Larnaca in the Municipal Garden under the patronage of Lady Palmer. Before the Exhibition the Child Welfare Associations held local shows in their respective town and the winning babies were entered in the competition for the Neff–Cuff Challenge Shield and were brought to Larnaca on the date of the Exhibition.

The babies from the Nicosia Child Welfare Clinic obtained the greatest number of marks and retained the Shield, won by them last year.

The Health Exhibition attracted a considerable number of people. A new feature among the exhibits was a large scale map of Cyprus showing all the medical and health organizations and depicting the principal marshes, the malaria and trachoma areas and the health resorts, etc. During the evening, public health lectures and cinema films were shown.

Hotels.

The Hotels Board continued the good work briefly referred to last year and through their activities the hotels of Cyprus have improved amazingly. As Chairman I have much pleasure in recording my thanks to all members for their zeal and sustained interest in what has been and continues to be a difficult task. £14,693. 7*s.* 1½*p.* has been spent by proprietors on improvements to their premises since the Hotels Law was enacted during 1935. Much remains to be done for certain hotels, but the owners are most willing to co-operate and this extra work will be an accomplished fact in the near future.

Public Health Lectures organized during 1936.

District	Number of Centres	Subject of Lectures					Total Number of Lectures	Approximate Attendance
		Pulmonary Tuberculosis	Typhoid	Malaria	Teeth	General Hygiene		
Nicosia	8	—	4	7	1	3	15	4,000
Larnaca	2	—	1	2	1	1	5	1,700
Limassol	1	—	1	1	—	—	2	300
Famagusta	—	—	—	—	—	—	—	—
Paphos	1	—	1	1	—	1	4	2,000
Kyrenia	3	—	—	3	—	1	4	2,000
Total	15	—	7	14	2	6	30	10,000

School for Sanitary Inspectors.

The Sanitary Inspectors' School was opened on 3rd November, 1936, and 25 pupils attended the course which was given free of charge. One of the pupils was a Sanitary Inspector from the Palestine Public Health Services. The period of training has now been increased from 3 to 5 months which is followed by two months' practical work. The class is subjected to a test every 15 days. The final examination will be held on 23rd and 24th March, 1937, when the Local Board of Examiners of the Royal Sanitary Institute will examine candidates for the Sanitary Inspectors' Certificate.

In addition to the course for the Sanitary Inspectors' Certificate it had been arranged for some of the Sanitary Inspectors in outlying stations to receive instruction at headquarters to improve their efficiency.

IV. PORT HEALTH WORK AND ADMINISTRATION.

The subjoined table shows the number of visits made by the Medical Staff to vessels arriving to Cyprus Ports during 1936 :—

District	*Aeroplanes*	*Steamships*	*Sailing Ships*	*Total*
Famagusta	—	188	138	326
Limassol	—	163	159	322
Larnaca	—	166	124	290
Karavostasi	—	76	12	88
Paphos	—	3	100	103
Kyrenia	—	6	17	23
Polis	—	—	1	1
Not ascertained	37	—	—	37

Note.—Visits of His Majesty's Navy and Aircraft have not been recorded.

V. MATERNAL, CHILD WELFARE AND SOCIAL HYGIENE.

MATERNAL WELFARE.

The training of midwives continued during the year. There is one Government Midwife in Nicosia and two Honorary Midwives stationed at Limassol and Famagusta. Dr. H. Symeonides conducted the lectures at Nicosia during December and January and the examinations were held in March, 1937. 15 pupils attended the classes and 15 passed the local examination.

During the year 15 pupils started training and 15 pupils received the Government Certificate of Competency.

The Government Midwives with their pupils attended to 294 confinements during the year as follows :—

Nicosia, 119. Limassol, 130. Famagusta, 45.

Under the Midwifery Law of 1932, 5 midwives holding diplomas of recognized schools and 15 trained in Cyprus were registered.

Nicosia Maternity Wards.

Cases—	(1) Normal	130	
	(2) Complicated	104	
			Total 234
Deaths—	(1) of Mothers	2	
	(2) of Infants born alive	7	
	(3) Still births	26	
Sex—	Male	128	
	Female	108	
Operations—	Instrumental delivery	12	
	Removal of Placenta	6	
	Cæsarian section	3	
Diseases and complications affecting mother—			
	Malaria	2	
	Albuminuria	7	
	Anæmia	1	
	Lacerated Perineum	5	
	Placenta Prævia	8	
	Post Partum Hæmorrhage	2	
	Ante ,, ,,	1	
Diseases and complications affecting the infant—			
	Asphyxia	8	

CHILD WELFARE.

Child Welfare Clinics have, thanks to energetic committees, been usefully functioning in four of the six principal towns and the work at these clinics steadily increases. The new building referred to in last year's Report was completed and brought into use during the year. It is a splendid building and furnishes the space and accommodation necessary for comfortable, efficient work.

VI. HOSPITALS AND DISPENSARIES.

HOSPITALS.

There are Government Hospitals in Nicosia and Limassol and State-aided Hospitals at Larnaca, Famagusta, Paphos and Kyrenia. The accommodation in these Hospitals is 306 beds and 25 cots: The total number of admissions during the year was 5,647 as compared to 4,852 during 1935.

Through the inadequate number of beds at Nicosia General Hospital, administrative difficulties have again been encountered and scores of patients needing hospital treatment have had to be refused admission.

A powerful X-Ray set capable of being utilized for deep X-Ray therapy was purchased during the year through the Radiologist, doing duty at the American University, Beirut, and will be installed in the new hospital for such work. The present set will then probably be used but for diagnostic work presenting from the Out-patient Department.

The ambulance referred to in last year's Report was purchased and duly brought into service early in the year. So useful has it been that it is difficult to understand how we have heretofore managed without such a vehicle. Another similar ambulance has been provided for in the 1937 Estimates to be attached to the Government Hospital, Limassol, for duty in that District and Paphos.

The Limassol Government Hospital, too, has been constantly filled, has been ably managed by the District Medical Officer and his staff, and calls for little work from a central administrative point of view.

Full particulars of the work carried out in these General Hospitals will be found in the Appendices attached to this Report.

MENTAL HOSPITAL.

This institution through increasing admissions is becoming overcrowded and extra accommodation for both male and female patients is urgently necessary.

The work there so ably carried out by the Medical Superintendent, Dr. S. Lysandrides, and his staff leaves nothing to be desired.

The 12-bed hospital with private accommodation foreshadowed in last year's Report has been constructed where cases of physical disease can now be admitted, isolated and receive modern nursing care and treatment.

The Medical Superintendent's Report is included as Appendix F.

LEPER FARM.

The arrangement whereby Government gives 1*s.* per day to each inmate for food is anything but satisfactory. The patients buy and consume whatever they like without knowing or caring if their dietary is sufficient for purposes of health and the satisfactory progress of their disease. Knowing that a balanced diet is an essential part of the successful treatment of this disease a memorandum was submitted to Government during the year and it is hoped that soon dining-rooms and kitchens will be constructed and staff made available for this very necessary change. A balanced diet will then be insisted upon and with specific treatment it is certain that a greater number of patients will come to quiescence and discharge.

Leper Farm.—Statistics for 1936.

Number of lepers in the Farm on 31st December, 1935	102	
Admitted during 1936	14	
		116
Paroled in 1936	6	
Died	5	
		11
Remaining on 31st December, 1936		105

The number of Lepers segregated in the Farm has increased as compared with last year.

Leper Farm Hospital.—This hospital is situated in the limits of Leper Farm and has accommodation for 12 patients.

The total number of admission during the year was 66.

A clinic is attached to this hospital where the lepers are given their injections and dressings. 2,882 injections with 26,446 dressings were carried out in this clinic during the year under review.

SANATORIUM.

Tuberculosis generally has been discussed elsewhere. It is, therefore, sufficient to say that the Athalassa Sanatorium continues to function satisfactorily and to record the rapid change noticed in the type of case admitted there. Earlier cases are presenting and patients from better families. This is undoubtedly due to the work of propaganda being done and will almost certainly continue. The Honorary Physician's Report is included as an Appendix J.

AIDED HOSPITALS.

These hospitals, which receive help from Government in the form of a grant-in-aid and Medical, Compounder and Sanitary Staff, are situated at Famagusta, Larnaca, Paphos, and Kyrenia. The local Committees of Management—under the Chairmanship of the Commissioner assisted by the District Medical Officers—have improved their Hospitals in many ways as is evidenced by the following extracted from District Annual Reports.

Famagusta Hospital.—The operating theatre was modernized by the installation of an up-to-date operating table with a shadowless lamp. New electric bowl and instrument sterilisers were also fitted. A water carried latrine system with septic tank was also installed to replace the existing bucket and earth system. In addition the hospital was re-painted throughout and many necessary repairs effected.

The accommodation for private patients is found to be inadequate with the growth of the town and a scheme to remedy this was approved.

Larnaca Hospital.—The new Venereal Diseases Clinic mentioned in last year's Report, for which plans were prepared during the year, was not put under construction but will be early in 1937.

In addition the same year will, I have reasons to believe, see the completion of a new Tuberculosis dispensary, surgical theatre and a maternity ward all essential for the work presenting there.

Paphos Hospital.—A new building for the nurses of this hospital was constructed during the year from money donated on the occasion of the Silver Jubilee of His late Majesty King George V. This building provided sufficient comfortable sleeping accommodation for 6 nurses, a common sitting and dining-room, bath and lavatories and is removed from the hospital so that quietness is assured.

Kyrenia Hospital.—Much is being done and is contemplated at this hospital. The wards are being completely modernized by new wooden floors, electric fixtures, beds, etc. The private accommodation has been completely re-decorated and changed and a new maternity wing constructed at the end of the male ward. It is proposed as well to build a new surgical block during 1937. A modern hospital where asepsis can be maintained for major surgery and obstetrical work will result.

RURAL HOSPITALS.

These small hospitals continue to do valuable work for the more minor cases requiring hospitalization. The Lysi hospital was nearing completion as the year ended and funds are now sufficient for a new one at Polis which will be opened during 1937.

DENTAL CLINICS.

Honorary Dentists are now doing duty in all six districts and work amongst school children and holders of Mukhtars' certificates has increased very considerably. It is hoped that soon money may be available for the appointment of a full-time Dental Officer.

Report by Dr. J. Marcellos is included as Appendix I.

The following are statistics for their work done during the year.

Statistics.

	Consultations	Abscess treated	Extractions	Pyorrhoea	Fillings	Temporary fillings	Operations	Sealing	Diseases of the mouth	Plates	Dental prosthetic work
Nicosia and Kyrenia	6,747	365	3,643	625	1,841	753	12	618	117	21	4
Larnaca ..	5,310	83	2,097	54	210	324	2	210	24	2	—
Limassol ..	2,902	5	664	15	96	20	—	11	4	—	—
Famagusta	907	10	463	84	40	147	—	8	31	—	—
Paphos ..	2,403	90	1,058	55	155	303	—	184	2	—	—

Full reports of the work done are available at this office.

EYE CLINICS.

The total work done at these institutions both at the Hospitals and by the Travelling Oculists is recorded in the table of diseases.

There are three Travelling Oculists on the staff who attended the following patients during the year :—

	Limassol–Paphos	*Nicosia–Kyrenia*	*Famagusta*
New cases	1,267	2,438	4,885
Secondary treatments	5,511	5,383	9,219
Trachoma	1,532	2,059	3,873
Operations	5	94	369

The Honorary Oculists attended the following patients :—

	Larnaca	*Nicosia*	*Limassol*
New cases	867	1,086	1,030
Secondary treatments	3,161	2,736	5,311
Trachoma	1,499	* —	* —
Operations	110	22	31

STATEMENT OF THE AMOUNT OF WORK PERFORMED YEARLY AT THE SIX HOSPITALS FOR THE YEAR 1936.

District	In-patients	Day-cases	% Deaths to No. of in-patients	Dressings	Major operations	Maternity cases	Number of beds	Number of cots
Nicosia	1,885	29,422	5.0	25,924	914	234	108	4
Limassol	763	9,970	5.5	4,457	393	94	45	4
Larnaca	1,034	6,800	2.3	3,875	401	84	55	4
Famagusta	837	6,407	2.4	2,168	278	59	38	4
Paphos	557	4,200	4.7	1,492	62	10	28	7
Kyrenia	571	2,525	2.9	3,492	36	64	32	2
Mental Hospital	—	—	—	—	—	—	—	—
Sanatorium	99	—	24.2	—	—	—	55	—
Leper Farm Hospital	66	—	7.5	—	—	—	12	—

DISPENSARIES.

There are 6 District Dispensaries attached to each hospital and 10 Rural Dispensaries scattered over the whole Island.

The following figures show the work carried out in each Dispensary:—

Place	*No. of new cases*	*No. of old cases*	*No. of dressings*	*No. of prescriptions executed*
Nicosia	32,076	44,334	25,924	69,712
Larnaca	6,772	9,292	3,875	30,748
Limassol	9,970	5,923	4,457	37,123
Famagusta	6,408	6,255	2,168	23,161
Paphos	4,200	2,048	1,492	10,981
Kyrenia	2,525	1,249	3,492	9,952
Morphou	4,284	2,865	1,169	12,633
Lefka	1,887	863	628	5,229
Pedhoulas	446	194	56	1,282
Klirou	1,849	1,211	729	6,968
Kophinou	3,606	4,017	467	13,300
Agros	1,623	1,169	399	3,791
Perapedhi	2,850	1,068	78	7,648
Lefkoniko	4,294	3,224	939	15,240
Lysi	1,773	763	1,017	5,525
Polis	3,907	3,156	733	13,832

VII. CONTROL OF PROFESSIONAL PRACTICE.

(*a*) *Medical Council.*—The Medical Council met on seven occasions during the year.

(*b*) *Medical Practitioners.*—23 Medical Practitioners were registered during the year with qualifications from the following schools : Athens 14 ; Edinburgh 3 ; London 3 ; Gratz 1 ; Belfast 1 ; Paris 1.

(*c*) *Dental Practitioners.*—1 Dentist was registered from the University of Istanbul.

(*d*) *Druggist and Pharmacists.*—11 were registered : all local.

(*e*) *Control of Dangerous Drugs.*—This is not satisfactory and the laws and regulations dealing with the matter of control are being revised and strengthened.

The number of permits issued for the local transfer of dangerous drugs between authorized persons is 267.

No prosecutions were made during the year for illegal possession of Cocaine.

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* Included in Nicosia–Kyrenia & Limassol–Paphos returns.

TABLE SHOWING THE AMOUNT OF DANGEROUS DRUGS FOR WHICH LICENCES TO IMPORT HAVE BEEN GRANTED DURING THE YEAR 1936.

Name of Drug.	*Quantity.*		
	No.	*Kgs.*	*Litres*
PURE DRUGS.			
Codeine (Methylmoprhine)	—	0.518349	—
Medicinal Opium	—	0.150000	—
SALTS.			
Cocaine Hydrochlor	—	0.757621	—
Codeine Phosphas	—	0.468349	—
Diamorphine-Hydrochlor (Heroine)	—	0.02000	—
Ethylmorphine Hydrochlor (Dionine)	—	0.055000	—
PREPARATIONS.			
Ampoules Diacetylmorphine Hyd. (Heroine) 0.01	50	—	—
Ampoules Diacetylmorpnine Hyd. (Heroine) 0.02	50	—	—
Ampoules Hypnoton	500	—	—
,, Morphine Hydrochlor 0.01	8,986	—	—
,, ,, ,, 0.02	5,000	—	—
,, ,, ,, et Atropin 0.01	600	—	—
Ampoules Morphine Hydr. et Atropin 0.02	200	—	—
Ampoules Morphine Hydrochlor Scopolamine 0.01	150	—	—
Ampoules Sedol	632	—	—
Chlorodyne B.P.C.	—	—	2.568245
Comprime Sedol "Merck" 0.005	1,500	—	—
Extract. Cocæ Liq.	—	—	3.000000
,, Elixir Paregoric for the preparation of Elixir paregoric	—	—	0.250000
Extract. Fluid pour Sirop Diacode	—	—	2.050000
,, Opii Sic.	—	0.080000	—
,, ,, Liq.	—	—	0.500000
Granules Extr. Opii 0.02	150	—	—
,, Terpine Boveil, boxes of 100 grains	1	—	—
Pantopon Pulvis	—	0.020000	—
Sirop Ephedonine "Merck" bottles of 170cc	212	—	—
,, Bromoform "Lug" bottles of 180cc	25	—	—
Tablets Pantopon	120	—	—
,, Veganin	1,000	—	—
Tincture Chloroform et Morphine Co.	—	—	4.000000
,, Cocæ	—	—	7.000000
,, Opii	—	—	3.000000
,, ,, Crocata	—	—	5.500000
Tucker's Asthma Remedy bottles of 1 fl. oz.	30	—	—

RETURN SHOWING THE COST OF DRUGS, DRESSINGS, ETC., ISSUED BY THE MEDICAL DEPARTMENT TO GOVERNMENT DEPARTMENTS, PHILANTHROPIC INSTITUTIONS (OTHER THAN ON MEDICAL PRESCRIPTION) DURING THE YEAR 1936.

Department	*Amount*
Agricultural Department	£12 8 2
Forest ,,	7 19 7
Public Works ,,	17 10 4
Police ,,	10 13 5
Prisons ,,	24 13 0
Railway ,,	2 16 3
Customs ,,	2 1 3
Government Offices	2 17 1
Printing Office	1 5 6
L.R. and Survey Department	1 15 0
Museum	– 4 0
Poor Houses	31 3 7
Prophylactic Stations	11 11 0
"Mana" Society	1 12 0
St. Barnabas School for the Blind	1 11 7
Boy Scout Club, Nicosia	– 6 8
Infant Welfare Centre, Nicosia	57 6 3
Total	£187 16 2

VIII. METEOROLOGY.

Meteorological Return for the Year 1936.

	Temperature						Rainfall		Winds	Average force (0–10)	Remarks
	Solar Maximum °F	Minimum on grass °F	Shade maximum °F	Shade Minimum °F	Range °F	Mean °F	Amount in inches	Degree of humidity %	General direction		
January	135	29	70	41	29	55.5	1.22	76.84	E.	2.2	Very cold weather
February	134	23	69	32	37	50.6	1.95	75.00	NW.	3.1	Very cold weather
March	153	28	82	37	45	60.0	0.74	64.56	SE & NW.	2.6	Very cold weather
April	163	36	95	44	51	70	1.39	60.30	NW.	2.8	Fair weather
May	158	42	92	50	42	71	3.01	61.08	NW.	1.63	Fair weather
June	158	50	98	54	44	76	0.25	58.27	NW.	1.4	Very hot weather
July	164	54	105	63	42	84	—	63.08	SE & NW.	1.55	Very hot weather
August	163	53	102	67	35	85	—	61.78	NW.	1.4	Very hot weather
September ..	158	43	99	55	44	77	0.04	52.45	NW.	1.7	Very hot weather
October	158	42	95	53	42	74	0.04	59.68	NW.	2.2	Fair weather
November.. ..	143	25	83	36	47	60	0.84	62.50	NW.	1.81	Fair weather
December	126	28	69	31	38	50	4.57	73.61	E.	2.0	Very cold weather
	151.0	37.70	88.25	46.9	41.33	67.66	1.20	64.10	—	1.78	

IX. SCIENTIFIC.

Publications.

(1) " A Study of Colocasia (*Colocasia antiquorum* Schott)," by Stanley G. Willimott, Ph.D. (Cantab.), Government Analyst.

(2) " Potassium Permanganate Poisoning," by Stanley G. Willimott, Ph.D. (Cantab.), B.Sc., Ph.D. (Liverp.), Government Analyst, Cyprus, and Mark Freiman, M.D., Medical Officer, Cyprus and General Asbestos Company.

X. RECOMMENDATIONS.

(1) The appointment of—
  (*a*) A Tuberculosis Officer.
  (*b*) A full-time Dental Officer.
(2) A training school for nurses.
(3) A travelling eye clinic for the treatment of trachoma in villages.
(4) A building to include accommodation for out-patients, consulting, examination rooms and dispensary on Troödos.

ERROL A. NEFF,
Director of Medical Services.

APPENDIX A.

SUMMARY OF MY PROPOSALS FOR THE REORGANIZATION OF THE DEPARTMENT AND SUBMITTED DURING JULY, 1935.

Since assuming control of the Medical Department, during December, 1934, I have carefully inspected the existing scheme of hospital and rural medical control and feel that the present system must be discontinued if I am to have the necessary efficiency in relation to expenditure. Certainly, at present, we are getting little from the Cypriot Medical Staff and considering their meagre salaries and the work they are supposed to do for that salary one cannot altogether blame them if most of their time is taken up in efforts to increase their private practices. It is undoubtedly true that now much of the money spent on personal emoluments is being wasted and the only return is lethargic care of indigent poor and Police work. The full-time Cypriot Medical Officer, 2nd Grade, is paid but from £180 by £10 to £220, is given a considerable district to inspect regularly and for such inspection is required to pay his travelling expenses from his own pocket. Private practice amounts to but little in the districts and in respect of the Medical Officers doing duty at the various hospitals, little time is available for private work. At present, of 26 Medical Officers—1st and 2nd Grades—15 are employed in the Hospitals and Venereal Disease Clinics and 3 as Travelling Oculists. The remainder are in the districts.

2. The Island at present, for medical and health control, is divided into 23 rural stations and 6 Districts. The rural stations are served by 15 District Surgeons drawing £50 per annum and £2 commuted travelling allowance each month and by 8 full-time Medical Officers, 2nd Grade. The 6 Districts are covered by the Medical Officers doing duty at the hospitals.

3. The District Surgeons came into being during 1933 as an economy measure and I regret to say most of them serve no useful purpose in so far as the Department is concerned. Considering their salaries it is not surprising that they give little to Government.

4. Rural Medical Officers and District Surgeons are, as well, supposed to carry out sanitary work—assisted by the Sanitary Staff—do school inspection and health work in general but I find that this is not being done, many of their districts are constantly in a neglected condition from a sanitary point of view and practically no work is being done in respect of school children.

5. With the Island's splendid roads and the approaching general distribution of telephones, I feel that the time has come to decrease staff, increase salaries, curtail private practice and require Medical Officers to take control of larger districts with no direct responsibility for sanitation.

6. I, therefore, submit for consideration the following scheme of reorganization—pieced together after very considerable thought—which will, I am convinced, lead to a much higher degree of efficiency and will cost no more than the present system especially when one takes into consideration the revenue which most certainly will result.

7. I propose to divide the Island into but 14 Districts and to staff these districts together with the hospitals as follows :—

6 British District Medical Officers.
3 Cypriot Medical Officers, 1st Grade.
3 Cypriot Health Officers.
16 Cypriot Medical Officers, 2nd Grade.
3 District Surgeons.

8. The whole success of the scheme depends on the presence of a British Medical Officer in each of the principal Districts, *i.e.* Famagusta, Larnaca, Limassol, Paphos and Nicosia. These officers will directly control the work of their respective hospitals and between them the 14 proposed districts. Experience amply shows that where a British District Medical Officer is in charge, Cypriot Medical Officers are inspired to work and efficiency and smooth control results. These officers will be allowed private practice amongst the English and introduced population group and consulting practice generally. Their salaries to be £500–£700 rising by annual increments of £20.

9. To the present Cypriot Medical Officers, 1st Grade, I propose to give salaries at the rate of £350 by £20 to £450 with a strict efficiency bar at £400. At present these officers are stationed at Nicosia, Larnaca and Kyrenia and are all capable of doing splendid work.

10. Three full-time Health Officers to be employed to take care of districts as follows :—

1 for Nicosia–Kyrenia Districts.
1 for Larnaca–Famagusta Districts.
1 for Limassol–Paphos Districts.

These officers will do only health and school work and utilize the existing staff of District Sanitary Inspectors and Sanitary Inspectors in their programme of work. They will be stationed at District Medical Headquarters, be under the direct supervision of the District Medical Officer, will not be available for clinical work but will be directly responsible for all health work and rural sanitation. By taking into their hands full responsibility for the activities of their sanitary staff, they will thus relieve the full-time Medical Officers of much work and give them ample time for routine medical duties.

I have one officer about to finish his studies for the D.P.H. at the Rockefeller Assisted School at Athens and hope to get another away for similar training this autumn.

Eventually, one officer should be trained for duty in each of the principal Districts but in the meantime 3 will suffice.

11. To staff the hospitals and the enlarged districts but 16 Medical Officers, 2nd Grade, are necessary at a salary of £250 by £10 to £350 with a strict efficiency bar at £300. This will necessitate the abolition of 4 whole-time Officers and one School Medical Officer at present paid from " Other Charges."

12. Regarding private and consultant practice in respect of the above 19 Medical Officers, 1st and 2nd Grades, my original recommendations were that all necessary private practice be covered by the official receipt F. 18 and credited to General Revenue. This has now been modified as follows:—

(*a*) Under no circumstances are they entitled to private practice from patients presenting at a Government, State-aided hospital or a rural dispensary. Fees from patients not entitled to a Mukhtar's Certificate and examined and treated there should be covered by a receipt (F. 18) and the amount recovered, recorded and paid into revenue.

(*b*) Private practice is to be confined to approved localities where a civilian practitioner is not yet available and while such fee may be retained from patients not entitled to a Mukhtar's Certificate, the scale of fees to be drawn up by me must in no case be exceeded.

(*c*) In all towns and in villages where there is a private practitioner they are entitled to consulting practice only. In respect of such consultations they may demand a reasonable consultation fee and retain it. A consultation is to be understood to mean—" a meeting of two or more practitioners to examine into the features of a case of disease or injury and to settle upon the course of treatment to be pursued." In no other circumstances in such a town or village may they see, examine or treat a private patient. This does not, of course, apply to holders of Mukhtar's Certificates nor does it preclude their caring for an emergency. In the latter case (emergencies) this is to be regarded as acting for the usual medical attendant and any charge for such attendance should be made by the doctor on whose behalf the visit is made.

(*d*) Quarantine over-time fees may be retained but in respect of all " Police " cases the fees are to be recorded and paid into revenue.

To accept private practice in contravention of these orders will render a medical officer liable to official proceedings for dismissal from the service.

13. District Surgeons now number 15. I intend to retain but three of them, at their present salaries, and to release twelve. This can be done by simply giving them a month's notice. For the most part, I have no doubt, these 12 will stay in practice where they now are and no real hardship will result. The three I retain will be given duty at points where small rural hospitals are operating and will carry out a small itinerary as well. This will obviate the retention of at least 2 more full-time officers.

14. Coming to Compounders—the present state is unsatisfactory as at present 11 rural dispensaries have no compounders and it is undoubtedly true that considerable revenue—sale of drugs—is lost thereby. The revised scheme will provide one compounder for every rural station as well as adequately taking care of all hospitals and, at the same time, will affect a saving on rentals for dispensaries, travelling and commission on sale of drugs while giving 2nd, 3rd and 4th Grades Compounders a small increase of salary. This is fully shown in detail in the Appendices.

15. *Nursing Service.*—The scheme of the Cypriot Nursing Staff is revised and the scale is reduced for new appointments. I feel strongly here as, considering these girls are intellectually poor, are given food, lodging and uniforms, their salaries are too high. I have reduced them—the present scale of pay remaining personal to the present holders. The whole scheme will come into force when the girls, who will undertake training in Beirut, assume duty.

16. Male Orderlies have been put into 2 classes for new appointments. This will allow me to follow the work of newly-appointed orderlies and promote to the higher scale, as occasion offers, only those of proven worth.

17. The whole revised plan, for purposes of comparison, is set out in detail as against the approved estimate for 1935 and summarized in detail later. Allowing for but one Health Officer next year—as the two others will first have to be trained—and the saving in salaries at present paid to the 12 District Surgeons, 1 School Officer and 4 full-time Medical Officers released, a saving of £640 results and when one adds the conservative estimate of increased revenue given in the Summary of the Scheme—*i.e.* £1,310—a total saving plus revenue of £1,950 will result and this in spite of the fact that adequate travelling allowances will be available for all officers.

E. A. Neff,
Director of Medical Services.

MEDICAL SERVICE, 1935.

The Staff at present consists of :—	£	£
1 Surgical Specialist	1,000	
3 District Medical Officers (British)	1,561	
26 Medical Officers :—		
3 First Grade (£230 by £10 to £270) 23 Second Grade (£180 by £10 to £220)	6,012	
(Of the 23 Medical Officers, Second Grade, three are employed as Travelling Oculists and four as Medical Officers in Venereal Diseases Clinics.)		
1 School Medical Officer	180	
15 District Surgeons at £50 each	750	
1 Dentist £180 4 Dentists £200	380	
3 Honorary Oculists at £50 each	150	
1 Medical Superintendent Mental Hospital	200	
1 Laryngologist	50	
1 Radiologist (for Larnaca Hospital)	50	
Total Emoluments		10,333
plus travelling as follows :—		
3 Oculists at £60	180	
1 School Medical Officer	24	
15 District Surgeons at £24 each	360	
1 Dentist	60	
1 Dentist	25	
1 Oculist	25	
Total Travelling		674
Total Expenditure		£11,007

REVISED SCHEME OF MEDICAL SERVICE.

1 Surgical Specialist	£1,000	
6 District Medical Officers (£500 by £25 to £600)	3,061	
3 Medical Officers, First Grade (£350 by £20 to £450)	1,050	
3 Health Officers (£300 by £10 to £350) (one on the scale of £350 by £20 to £450)	950	
16 Medical Officers, Second Grade (£250 by £10 to £350 with efficiency bar at £300)	4,000	
5 Dentists	380	
3 Honorary Oculists at £50 each	150	
1 Medical Superintendent, Mental Hospital	200	
1 Radiologist for Larnaca Hospital	50	
1 Laryngologist	50	
3 District Surgeons at £50 each	150	
Total Emoluments		11,041
plus travelling : £42 to £50		
3 Additional District Medical Officers 16 Medical Officers, 2nd Grade 3 Health Officers		1,100
Total		£12,141
Estimated Revenue to Government through new scheme :—		
1. Private practice	570	
2. Operation, Maternity and V.D.	300	
3. Fees, collected from Police cases	150	
4. Quarantine, overtime fees	160	
5. Saving on legal vote and travelling	100	
6. Miscellaneous receipts	30	
		1,310

SUMMARY.

Present cost of Medical Service (1935)	11,007	
Cost of revised Medical Service	12,141	
Excess		1,134
(*Add*) Revenue		1,310
Saving to Government		£176

COMPOUNDERS.

Present Staff :—

	£	£
1 Medical Storekeeper (£230 by £10 to £270)	260	
2 Compounders, 1st Grade (£180 by £10 to £220)	3,298	
8 Compounders, 2nd Grade (£120 by £ 6 to £150)		
14 Compounders, 3rd Grade (£ 78 by £ 6 to £108)		
4 Compounders, 4th Grade (£ 48 by £ 3 to £ 60)		
Commission on sale of drugs	39	
Rent of Rural Dispensaries	114	
Travelling	90	
Total Cost		3,801

REVISED SCHEME.

	£
3 Compounders, 1st Grade, (£180 by £10 to £220) (including one for Medical Stores)	3,439
6 Compounders, 2nd Grade (£150 by £6 to £174)	
14 Compounders, 3rd Grade (£ 90 by £6 to £120)	
5 Compounders, 4th Grade (£ 60 by £3 to £ 72)	
Saving	£362

Note.—This will provide every station with a Compounder. At present many stations are without one.

COMPOUNDERS, 1935.

Station	1st Grade	2nd Grade	3rd Grade	4th Grade	Clerk	Medical Store-keeper
Nicosia	1	—	2	2	1	—
Larnaca	1	—	1	—	—	—
Limassol	—	—	3	1	—	—
Famagusta	—	1	—	1	—	—
Paphos	—	—	1	—	—	—
Kyrenia	—	1	—	—	—	—
Morphou	—	—	1	—	—	—
Lefka	—	1	—	—	—	—
Klirou	—	1	—	—	—	—
Kophinou	—	—	1	—	—	—
Agros	—	—	1	—	—	—
Perapedhi	—	—	1	—	—	—
Lefkoniko	—	1	—	—	—	—
Yialousa	—	—	1	—	—	—
Vatili	—	1	—	—	—	—
Polis	—	1	—	—	—	—
Medical Stores	—	—	1	—	—	1
Travelling	—	—	1	—	—	—
On leave	—	1	—	—	—	—
Total	2	8	14	4	1	1

Note.—At present the following Dispensaries are without a Compounder :—

Pedhoulas, Pyrgos, Nisou, Kellaki, Pakhna, Stroumbi, Pano Panayia, Kelokedhara and Myrtou.

REVISED SCHEME.

Station	1st Grade	2nd Grade	3rd Grade	4th Grade
Nicosia	1	1	1	1
Larnaca	—	1	1	—
Limassol	1	—	1	1
Famagusta	—	1	—	1
Paphos	—	1	—	1
Kyrenia	—	1	—	1
Morphou	—	—	1	—
Lefka	—	—	1	—
Pedhoulas	—	—	1	—
Klirou	—	—	1	—
Lefkara	—	—	1	—
Agros	—	—	1	—
Lefkoniko	—	—	1	—
Yialousa	—	—	1	—
Pakhna	—	—	1	—
Polis	—	—	1	—
Kelokedhara	—	—	1	—
Medical Stores	1	1	—	—
Total	3	6	14	5

Note.—The scheme will provide Compounders, 1st Grade, for the principal towns, Nicosia and Limassol, where there are Government Hospitals.

The Compounders, 2nd Grade, will undertake responsible duties in the towns, assisted in some cases by Compounders, 4th Grade.

The Compounders, 3rd Grade, will do duty at the Rural Dispensaries.

NURSING STAFF.

PRESENT SCHEME.

Station	Staff Nurses	Probationers	Volunteer Nurses	Male Orderlies
Nicosia Hospital	2	13	—	3
Limassol Hospital	2	2	2	2
Sanatorium	1	1	—	2
Leper Farm	1	—	—	—
Vacant	1	—	—	—
Larnaca Hospital	—	—	—	1
Total	7	16	2	8

Cost:—

	£	
7 Staff Nurses (£60 by £3 to £72)	470	
16 Probationers (£20 to £27)	432	
2 Volunteer Nurses at £12 each	24	
8 Male Orderlies (£60 by £3 to £72)	568	
		£1,494

REVISED SCHEME.

Station	Local Sisters	Staff Nurses	Probationers		Male Orderlies	
			1st Grade	2nd Grade	1st Grade	2nd Grade
Nicosia Hospital	2	2	7	6	2	1
Limassol Hospital	1	2	2	3	1	1
Sanatorium	—	1	1	—	1	1
Leper Farm	—	1	—	—	—	—
Larnaca Hospital	—	—	—	—	1	—
Total	3	6	10	9	5	3

Cost :—

	£	
3 Local Sisters (£60 by £6 to £96)	180	
6 Staff Nurses (£42 by £3 to £54)	252	
Probationers :—		
10 First Grade (£27 by £3 to £36)	270	
9 Second Grade (£18 by £3 to £24)	162	
Male Orderlies :—		
5 First Grade (£60 by £3 to £72)	300	
3 Second Grade (£42 by £3 to £54)	126	
		£1,290
Saving to Government		£204

SUMMARY OF THE SCHEME.

When the scheme is completely put into force, *i.e.* when the three Health Officers are appointed (one is provided for 1936, Appendix B) and the Local Sisters complete their training in Beirut, the cost of the scheme, as compared with 1935 Estimates, will be as follows :—

	1935	*Revised Scheme*	*Excess*	*Saving*	*Revenue (additional)*
	£	£	£	£	£
Medical Service (Appendix E & F)	11,007	12,141	1,134	—	1,310
Compounders (Appendix G & H)	3,801	3,439	—	362	—
Nursing Staff (Appendix I)	1,494	1,290	—	204	—
Total	£16,302	£16,870	£1,134	£566	£1,310

	£
Cost as per 1935 Estimates	16,302
Cost as per scheme	16,870
Excess	£568
Additional Revenue to be collected	£1,310
Deduct excess	£568
Net Saving	£472

APPENDIX B.

REPORT OF THE SPECIALIST (SURGEON) FOR THE YEAR 1936.

By Cyril H. Cuff, O.B.E., M.B., B.S., F.R.C.S. (Ed.), *Specialist* (*Surgeon*), *Cyprus.*

The principal item of interest during the year was the commencement of the New Nicosia General Hospital.

As may be seen from the frontispiece, when completed, it will be a fine modern building providing every convenience for patients and staff.

The upper floor will be allotted for Surgical Wards, theatre block and private rooms. The middle floor will house the medical patients, and the ground floor will be occupied by the Administration, X-Ray Department, Laboratories, kitchens, etc. The total accommodation available will be about 120 beds.

As usual, all hospitals have been working to full capacity, and overcrowding has often been unavoidable.

Among improvements that have been effected in the State-Aided Hospitals may be mentioned the building of separate Nurses' Quarters at Paphos and Famagusta, thus supplying a long-felt want. A little more consideration for the comfort of the Nursing Staff will result in increased efficiency and contentment.

Regular visits have been paid to the District Hospitals for the purpose of consultation with the Medical Officers-in-Charge and operations.

Cases requiring special treatment are transferred to the Central Hospital at Nicosia, and in this connection, the Motor Ambulance has proved invaluable.

Radiological Department.

This department has been exceptionally busy during the year, some 600 films having been used, and a large number of investigations of the gastro-intestinal tract undertaken.

The portable Phillips machine has proved most useful in fracture work, especially in the wards, and undoubtedly this routine control of fractures by X-Ray leads to improved results.

An opportunity arose during September to acquire a powerful 4-valve apparatus from Palestine, and this with certain modifications, will be suitable for deep therapy in the New Hospital.

Alterations to the present 90—30 apparatus are being undertaken, which will considerably improve the already efficient machine. These alterations chiefly concern the tube and screen stands.

An effective card index system for films has been introduced, which facilitates the tracing of old cases.

The Department owes a great deal of its success to the hard work of Miss E. Papadroushiotou who, since the departure of Dr. H. Rassim, Honorary Radiologist, has been largely responsible for all the routine examinations.

Fractures.

Partly owing to increase in motor traffic, the number of fractures admitted are more numerous. Fractures of the Femur are among the commonest, and on one occasion, during the year five were being treated simultaneously in one ward. Bohler's skeletal traction is used whenever possible, and with satisfactory results.

Operative treatment is still found superior in certain cases of fracture of the shaft of the humerus and of both bones of the forearm, and in our experience, this method, if properly carried out, gives rise to no undesirable complications.

Increasing use has been made of plaster of paris and Cramer wire, and again following Bohler's technique, has given every satisfaction.

Old malunitated fractures and dislocations continue to come up months after their treatment by the " bonesetter " and often require extensive open operations to effect any improvement.

Radium Therapy.

There is little new to add on this subject. The attached tables will show the general results up to December, 1936, and table II, cases treated each year since the commencement of Radium therapy.

The results generally continue to be satisfactory and there has been little alteration in technique. With the new supply of radium, now on order, it will be possible to apply the Stockholm method, in the treatment of Carcinoma of the Cervix Uteri, in preference to interstitial application. A more extended use of sorbo rubber applications has been tried out, using material of one inch in thickness, especially for the flat ulcerative type of rodent ulcer. The quantity of radium has been increased, and the time factor correspondingly reduced, giving, it would appear, better results. Certainly one obtains a greater homogeneity.

No unusual complications have been noted. In inoperable sarcoma, particularly of the neck, jaws, tonsil, etc., Radium has proved of the greatest use, especially as a palliative, and there are cases alive and well to-day, five years after treatment, who show no apparent metastases. It is hoped, later, to publish a separate report on some 70 of these cases.

HYDATID DISEASE.

This condition is sufficiently common in the Colony and often gives rise to serious complications, due either to pressure, infection or rupture. Such complications are usually one of the following: jaundice, ascites, hæmoptysis, pruritus and peritonitis.

The cysts occur in any part of the body, and even hypodermically. In our experience they are commonest in the liver, lungs, spleen and omentum.

Diagnosis is seldom difficult, though in doubtful cases blood and X-Ray examination are valuable. Treatment should aim at the complete removal of the endocyst and obliteration or drainage of the ectocyst. Occasionally it is possible to do a complete removal of the whole cyst, *e.g.* those arising from the free border of the liver, spleen or kidney.

Results are generally satisfactory, though a chronic fistula may give rise to subsequent trouble.

According to the Chief Veterinary Officer, the disease is prevalent among pigs and sheep, and is doubtless largely disseminated by the pariah dogs who haunt the slaughter-houses and villages.

GENERAL RETURN OF OPERATIONS (TABLE I).

This table shows some increase in the general operative work over that for 1935, but is more interesting in that it indicates the surgical conditions that are peculiarly common in the Colony, and those that are comparatively rare. It will be noted that appendicitis, hernia, malignant disease, eye conditions and bone operations, constitute the bulk of the major surgical work and that operations on the gastro-intestinal tract, gallbladder, kidney, etc., are uncommon, as are also such diseases as hæmorrhoids, empyema, osteolyelitis and tonsils.

It will be observed that 134 cases of curettage were dealt with during the year, mostly cases of incomplete abortion, and while it is certain that a percentage of these were due to normal causes, especially malaria, there is no doubt that many of them were the result of illegal intervention.

Increased co-operation between Hospital Authorities and the Police in suspicious cases would go a long way to improving this unsatisfactory state of affairs.

Co-operation between Hospitals and Local Medical Practitioners.

There is still room for improvement in this direction. Many practitioners feel that the hospitals are competing unfairly with them, despite the fact that very few patients are now received without some payment. They also complain that first and second class patients are accepted, and that this renders it difficult for doctors who own private clinics, to make a living. This I do not believe, as I am certain that an able doctor, conducting a well organized clinic, on reasonable terms will always be able to make a living. In this connection, it should be remembered that nearly every public hospital in England now accepts paying patients.

The custom of many doctors of sending patients to hospital after a period of treatment without a note indicating the nature of the disease, and previous therapy, is also to be deprecated.

TABLE I.—RETURN OF SURGICAL OPERATIONS OF 1936.

Operation	*Total*	*Cured*	*Relieved*	*Unrelieved*	*Died*
Abscess	171	133	27	5	6
Amputations	31	17	12	—	2
Appendicectomy	358	340	14	—	4
Benign Tumours	30	30	—	—	—
Cholocystectomy	9	7	—	—	2
Cæsarian section	13	9	—	3	1
Cystotomy	11	7	2	1	1
Curettage	134	122	11	—	1
Cystoscopy	6	4	1	—	1
Eye	165	141	24	—	—
Empyema (tapped)	2	—	2	—	—
Empyema (resection of Rib)	1	1	—	—	—
Fistula	13	13	—	—	—
Glands (excision of)	21	16	5	—	—
Gastro-Intestinal Oper	7	6	1	—	—
Hernia	204	170	25	—	9
Hydrocele	25	23	2	—	—
Hæmorroids	6	6	—	—	—
Hydatid cyst	15	10	4	—	1
Hysterectomy	21	18	2	—	1
Intestinal Operation	2	1	—	—	1
Laparatomy	35	15	5	8	7
Mastoids	18	12	4	—	2
Carried forward	1,298	1,101	141	17	39

TABLE I.—RETURN OF SURGICAL OPERATIONS OF 1936—*continued.*

Operation	*Total*	*Cured*	*Relieved*	*Unrelieved*	*Died*
Brought forward	1,298	1,101	141	17	39
Malignant Tumours—					
(*a*) Breast	18	9	9	—	—
(*b*) Uterus	29	4	25	—	—
(*c*) Other sites	78	11	61	3	3
Male Genital Organs	15	13	2	—	—
Miscellaneous	187	139	38	5	5
Minor Operations	195	181	13	—	1
Nephrectomy & Nephrotomy	2	2	—	—	—
Open Oper. on Fract & Joint	128	71	53	2	2
Open Oper. on Nerves	4	4	—	—	—
Osteomyelitis	5	3	2	—	—
Plastic Operations	18	14	4	—	—
Sequestrectomy	24	22	—	—	2
Salpingo-oophorectomy	24	9	4	7	4
Spleenectomy	2	2	—	—	—
Tonsils	41	41	—	—	—
Throat and nose	50	48	2	—	—
Trephining	9	6	—	—	3
Tendon transplantation	6	2	4	—	—
Tracheotomy	1	—	—	—	1
Thoracotomy	3	2	—	—	1
Ventrifixation	1	1	—	—	—
Total	2,138	1,685	358	34	61

TABLE II.—TABLES SHOWING PRESENT CONDITION OF PATIENTS SINCE COMMENCEMENT OF RADIUM THERAPY.

Patients treated in 1930. *Condition—December,* 1936.

	Number treated	Apparently cured	Improved	Recurrence	Died	Unknown	Not improved
Uterus	10	3	—	—	7	—	—
Head	26	12	—	2	12	—	—
Other sites	10	—	—	—	10	—	—

Patients treated in 1931. *Condition—December,* 1936.

	Number treated	Apparently cured	Improved	Recurrence	Died	Unknown	Not improved
Uterus	11	6	—	—	4	1	—
Head	20	11	1	—	7	1	—
Other sites	17	5	—	—	12	—	—

Patients treated in 1932. *Condition—December,* 1936.

	Number treated	Apparently cured	Improved	Recurrence	Died	Unknown	Not improved
Uterus	15	3	—	—	12	—	—
Head	29	18	—	1	10	—	—
Other sites	13	4	—	—	9	—	—

Patients treated in 1933. *Condition—December,* 1936.

	Number treated	Apparently cured	Improved	Recurrence	Died	Unknown	Not improved
Uterus	17	8	—	—	8	1	—
Head	31	18	1	3	9	—	—
Other sites	7	2	—	—	5	—	—

Patients treated in 1934. *Condition—December,* 1936.

	Number treated	Apparently cured	Improved	Recurrence	Died	Unknown	Not improved
Uterus	23	12	—	—	11	—	—
Head	38	29	—	3	6	—	—
Other sites	13	5	1	1	6	—	—

Patients treated in 1935. *Condition—December,* 1936.

	Number treated	Apparently cured	Improved	Recurrence	Died	Unknown	Not improved
Uterus	16	10	—	1	5	—	—
Head	24	14	1	1	6	—	2
Other sites	9	1	—	2	6	—	—

Patients treated in 1936. *Condition—December,* 1936.

	Number treated	Apparently cured	Improved	Recurrence	Died	Unknown	Not improved
Uterus	23	17	—	2	3	—	1
Head	38	27	3	2	5	—	1
Other sites	12	7	1	—	4	—	—

TABLE III.—GROWTHS OF THE FACE, LIPS, ETC.

Year	No. Treated	Alive at the end of							Died of Cancer by end of							Lost Sight of by end of							Survival Rates at the end of						
		1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.
																							%	%	%	%	%	%	%
1930	26	25	22	18	17	16	16	14	1	4	6	8	10	10	12	—	—	2	1	—	—	—	96	85	69	65	62	62	54
1931	20	20	17	18	18	17	12	—	—	2	2	2	2	7	—	—	1	—	—	1	1	—	100	85	90	90	85	60	—
1932	29	29	24	24	23	19	—	—	—	2	4	5	10	—	—	—	3	1	1	—	—	—	100	83	83	79	67	—	—
1933	31	24	24	22	22	—	—	—	4	5	6	9	—	—	—	3	2	3	—	—	—	—	77	77	71	71	—	—	—
1934	38	32	32	32	—	—	—	—	3	5	6	—	—	—	—	3	1	—	—	—	—	—	84	84	84	—	—	—	—
1935	24	21	18	—	—	—	—	—	2	6	—	—	—	—	—	1	—	—	—	—	—	—	88	75	—	—	—	—	—
1936	38	33	—	—	—	—	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	87	—	—	—	—	—	—

GROWTHS OF OTHER SITES.

Year	No. Treated	Alive at the end of							Died of Cancer by end of							Lost Sight of by end of							Survival Rates at the end of						
		1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.
1930	10	9	5	4	1	1	—	—	1	4	6	9	9	10	10	—	1	—	—	—	—	—	90	50	40	10	10	—	—
1931	17	15	10	8	6	5	5	—	2	5	7	8	10	12	—	—	2	2	3	2	—	—	88	59	47	35	29	29	—
1932	13	13	8	6	5	4	—	—	—	5	6	8	9	—	—	—	—	1	—	—	—	—	100	62	46	38	31	—	—
1933	7	5	5	2	2	—	—	—	1	1	4	5	—	—	—	1	1	1	—	—	—	—	71	71	29	29	—	—	—
1934	13	9	5	7	—	—	—	—	3	7	6	—	—	—	—	1	1	—	—	—	—	—	69	38	54	—	—	—	—
1935	9	8	3	—	—	—	—	—	1	6	—	—	—	—	—	—	—	—	—	—	—	—	89	33	—	—	—	—	—
1936	12	8	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	67	—	—	—	—	—	—

TABLE IV.—CANCER OF THE UTERINE CERVIX.

(*a*) Year	(*b*) No. treated	(*c*) Alive at the end of							(*d*) Died of Cancer by end of							(*e*) Lost sight of by end of							(*f*) Survival Rates by end of						
		1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.
																							%	%	%	%	%	%	%
1930 : Stage I ..	3	2	3	3	3	3	3	2	—	—	—	—	—	—	1	1	—	—	—	—	—	—	67	100	100	100	100	100	67
,, II ..	2	2	2	2	2	1	1	1	—	—	—	—	1	1	1	—	—	—	—	—	—	—	100	100	100	100	50	50	50
,, III ..	3	3	1	1	—	—	—	—	—	2	2	3	3	3	3	—	—	—	—	—	—	—	100	33	33	—	—	—	—
,, IV ..	2	1	—	—	—	—	—	—	1	2	2	2	2	2	2	—	—	—	—	—	—	—	50	—	—	—	—	—	—
Total	10	8	6	6	5	4	4	3	1	4	4	5	6	6	7	1	—	—	—	—	—	—	80	60	60	50	40	40	30
1931 : Stage I ..	5	5	5	5	4	4	4	—	—	—	—	1	1	1	—	—	—	—	—	—	—	—	100	100	100	80	80	80	—
,, II ..	3	3	2	3	2	2	2	—	—	—	—	1	1	1	—	—	1	—	—	—	—	—	100	66	100	66	66	67	—
,, III ..	3	3	—	—	—	—	—	—	—	1	2	2	2	2	—	—	2	1	1	1	1	—	100	—	—	—	—	—	—
,, IV ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	11	11	7	8	6	6	6	—	—	1	2	4	4	4	—	—	3	1	1	1	1	—	100	64	73	55	55	55	—
1932 : Stage I ..	2	2	2	2	2	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	100	100	100	100	50	—	—
,, II ..	4	4	3	2	2	2	—	—	—	1	2	2	2	—	—	—	2	—	—	—	—	—	100	75	50	50	50	—	—
,, III ..	7	5	1	1	1	—	—	—	2	4	6	6	7	—	—	—	—	—	—	—	—	—	71	14	14	14	—	—	—
,, IV ..	2	2	1	—	—	—	—	—	—	1	2	2	2	—	—	—	—	—	—	—	—	—	100	50	—	—	—	—	—
Total	15	13	7	5	5	3	—	—	2	6	10	10	12	—	—	—	2	—	—	—	—	—	87	47	33	33	20	—	—
1933 : Stage I ..	3	3	3	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	100	100	100	—	—	—
,, II ..	10	7	6	6	4	—	—	—	3	4	4	5	—	—	—	—	—	—	1	—	—	—	70	60	60	40	—	—	—
,, III ..	3	1	1	1	1	—	—	—	2	2	2	2	—	—	—	—	—	—	—	—	—	—	33	33	33	33	—	—	—
,, IV ..	1	1	1	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	100	100	—	—	—	—	—
Total	17	12	11	10	8	—	—	—	5	6	7	8	—	—	—	—	—	—	1	—	—	—	71	65	59	47	—	—	—
1934 : Stage I ..	4	4	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	100	100	—	—	—	—
,, II ..	11	7	6	6	—	—	—	—	2	3	5	—	—	—	—	2	2	—	—	—	—	—	64	55	55	—	—	—	—
,, III ..	8	5	3	2	—	—	—	—	2	3	6	—	—	—	—	1	2	—	—	—	—	—	63	38	35	—	—	—	—
,, IV ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	23	16	13	12	—	—	—	—	4	6	11	—	—	—	—	3	4	—	—	—	—	—	70	57	52	—	—	—	—
1935 : Stage I ..	6	6	5	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	100	83	—	—	—	—	—
,, II ..	8	6	5	—	—	—	—	—	2	3	—	—	—	—	—	—	—	—	—	—	—	—	75	63	—	—	—	—	—
,, III ..	2	2	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	100	—	—	—	—	—	—
,, IV ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	16	14	10	—	—	—	—	—	2	6	—	—	—	—	—	—	—	—	—	—	—	—	87	38	—	—	—	—	—
1936 : Stage I ..	7	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	—	—	—	—	—	—
,, II ..	12	11	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	92	—	—	—	—	—	—
,, III ..	4	3	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	75	—	—	—	—	—	—
,, IV ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	23	21	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	91	—	—	—	—	—	—

APPENDIX C.

REPORT OF THE PATHOLOGICAL BRANCH FOR 1936.

BY J. C. TULL, M.D. (MCGILL), F.R.C.P., *Government Pathologist.*

The work of this Branch is divided into :—

(*a*) Clinical Laboratory; (*b*) Bacteriological; (*c*) Serological; (*d*) Public Health; (*e*) Pathological; and (*f*) Medico-legal investigations. Of these the clinical laboratory and serological sections account for the majority of specimens. The laboratory serves the entire Island, but naturally the majority of the work comes from Nicosia and its immediate surrounding district.

The staff consists of :—

1 Pathologist (title changed from Bacteriologist, in October).
1 Laboratory Assistant.
1 Clerk (part time).
1 Attendant and cleaner.

I take this opportunity of expressing appreciation of their unswerving loyalty and willingness at all times.

Dr. M. Gosden vacated the post on 31st January on transfer to Trinidad. Dr. W. J. E. Phillips, then District Medical Officer, Nicosia, acted from 1st February, 1936, to 15th February, 1936, and Dr. G. McKay Gibbon from then until 24th September, 1936, when I assumed duty.

The work has maintained its numerical peak reached in 1935. The total number of specimens examined in 1934 was 9,833 ; 1935, 10,423 ; and 1936, 10,031.

During the last two months of the year an outbreak of Cerebro-Spinal Meningitis in the Island necessitated the bacteriological examination of 36 cases of the disease, and of naso-pharyngeal swabs from 169 contacts. At the time of writing this Report (January, 1937), the outbreak continues.

Number of Specimens examined per month.

January	764	July	949
February	639	August	812
March	708	September	1,151
April	572	October	1,076
May	777	November	895
June	838	December	850

806 specimens were sent by private practitioners during the year, as compared with 622 in 1935.

Routine Investigations.

511 films were examined for parasites of malaria, *P. falciparum* being found in 39 and *P. vivax* in 35. As the majority of films for the routine examination for malaria are not sent to this laboratory these figures in no way indicate the prevalence of the disease.

Eleven films were examined for piroplasms, which were present in 5.

Blood Cultures.

Eleven blood cultures were examined and *B. typhosus* grown from one.

Complement Fixation Tests.

The Wassermann Reaction was carried out on 4,698 sera, 1,269 of which were positive. The Weinberg test was done 13 times with one positive result.

Agglutination Tests.

Of 721 sera submitted, 292 were positive to *B. typhosus* in 1/250 at least, 44 to *B. paratyphosus A*, and 25 to *B. paratyphosus B*.

Pathological Fluids, Pus, etc.

95 specimens of C.S. fluid were submitted for culture, of which 5 grew staphylococcus aureus, and 1 staphylococcus albus. B. tuberculosis was present in one specimen. 8 specimens showed increase of albumen ; 6 an increase in the number of lymphocytes ; 1 showed a positive Wassermann Reaction, and 21 meningococci.

The colloidal gold test was carried out on 10 specimens of C.S. fluid, all of them showing a negative luetic curve.

Four specimens of clear pleural fluid were examined, one showing an increase in the number of lymphocytes.

Urethral and Cervical Smears.

1,032 were examined, the gonococcus being present in 377.

Sputa.

639 specimens were examined for B. tuberculosis, which was present in 261.

Stools.

70 specimens were submitted, one of which showed the ova of Tænia solium present ; 7 blood and pus ; one acid fast bacilli ; one entamœba histolytica, and one the cysts of entamœba histolytica ; one occult blood, and from one a Flexner type of dysentery was grown.

Naso-Pharyngeal Swabs.

308 such swabs were examined from contacts of C.S. Menigitis, 54 being positive to meningococci. Seven throat swabs showed the presence of Klebs-Lœffler bacillus.

Urine.

In 555 specimens sugar was present in 24, and the amount estimated in 24 ; albumen was present in 35 and amount estimated in 31 ; pus cells were present in 150 ; red blood cells in 62, and casts in 26.

Examinations for Leprosy.

Nasal swabs 59 ; positive 18. Skin scrapings 23 ; positive 9.

Histological Sections.

31 pieces of tissue were examined histologically. The details are given separately.

TABLE P—I.

Examinations performed	*No.*	*Principal Positive Findings.*	*No.*
Blood :			
Films	511	P. vivax	35
		P. falciparum	39
Film for Leishman Donovan bodies	1		
Counts	88		
Culture	11	B. typhosus	1
Biochemical :			
Urea	26		
Sugar	16		
Formol Gel test for Kala-azar	1		
Wassermann Reaction	4,698	Wassermann Reaction positive	1,269
		Wassermann Reaction doubtful	344
Weinberg Reaction	13	Weinberg Reaction positive	1
Agglutinations	721	B. typhosus	292
		B. paratyphosus A	44
		B. paratyphosus B	25
Films for Piroplasms	11	Piroplasms present	5
Pathological fluids, pus, etc. :			
Pus	22	Staphylococcus aureus	5
		Staphylococcus albus	1
		Tubercle bacilli	1
		Streptococci	1
Cerebro-Spinal-Fluids	85	Pus present	38
		Increase of albumen	8
		Increase in lymphocytes	6
Colloidal gold test for luetic curve	10	Wassermann Reaction positive	1
All negative		Wassermann Reaction weakly positive	1
		B. tuberculosis	1
		Streptococci present	2
		Pneumococci present	1
		Staphylococcus albus	1
		Meningococci present	21
Pleural Effusions	4	Increase in lymphocytes	1
Other Fluids	27	Pus present	2
		Streptococci present	1
		Increase in leucocytes	1
		Increase in lymphocytes	9
Exudates for spirochætes	4	Spirochætes present	1
Bone marrow for Leishman Donovan Bodies	1		
Sputa	639	B. tuberculosis positive	261
Urethral and cervical smears	1,032	Gonococci present	377
Stools	70	Tænia ova	1
		Blood and pus	7
		Acid fast bacilli	1
		Entamœbæ histolytica free forms	1
		Entamœbæ histolytica cysts	1
		Ascaris lumbricoides ova	1
		Occult blood	1
		Dysentery bacilli Flexner Y	1

Examinations performed.	*No.*	*Principal Positive Findings.*	*No.*
Pathological fluids, pus, etc.—continued.			
Pharyngeal swabs	308	Meningococci present	54
		Pneumococci present	2
		Diphtheria bacilli present	7
		Staphylococci present	19
Urines	555	Sugar present	25
		Amount estimated	24
		Albumen present	35
		Amount estimated	31
		Pus	150
		Blood	62
		Oxalates	86
		Casts	26
		Uric acid	29
		Phosphates	14
		Indican	1
		B. coli	15
		Bile	3
		Acetone	1
		Diacetic acid	1
		B. Tuberculosis	1
Examinations for leprosy :			
Nasal scrapings	59	B. lepræ	18
Skin scrapings	23	B. lepræ	9
Histological Sections :			
Tissues for histological examination	31	*January:*	
		Carcinoma of breast with secondaries in axilla.	
		Epithelioma of dorsum of hand.	
		Chronic endocervicitis of uterus.	
		Papilloma of umbilicus.	
		Recurrence of carcinoma of breast in scar of operation.	
		Chronic salpingitis.	
		October:	
		Fibroma of chest wall.	
		Chronic inflammatory changes jaw.	
		Adeno carcinoma cervix uteri.	
		Adeno carcinoma cervix uteri.	
		Scirrhous carcinoma breast.	
		Thyroglossal cyst.	
		Fibromyoma of uterus.	
		Capillary angioma of finger.	
		Chronic inflammatory changes right heel.	
		Chronic inflammatory changes glands neck.	
		Chronic inflammatory changes os vaginæ.	
		Fibromyoma of uterus.	
		November :	
		Squamous cell carcinoma cervix uteri.	
		Cyst buttock.	
		Chronic inflammatory changes mucous membrane of uterus.	
		Chronic luetic changes gland axilla.	
		Colloid Goitre.	
		Chronic inflammatory changes mucous membrane of uterus.	
		Keloid breast.	
		Chronic inflammatory changes cervix uteri.	
		Adeno carcinoma breast.	
		Squamous cell carcinoma cervix uteri.	
		Fibromyoma of uterus.	
		Nasal polypus.	
		December:	
		Giant cell tumour jaw (epulis).	
Specimens for Museum	6		

Examinations performed.	*No.*	*Principal Positive Findings.*	*No.*
Public Health Specimens :			
Blood smears (rat)	847		
Fleas (rat)	72	Batches not identified.	
Drinking waters	122		
Ice	8		
Various :			
Vaccines	4	T.A.B. batch 780cc.	1
		Typhoid only 1,480cc.	1
		Staphylococcus aureus	2
Piece of skin for anthrax bacilli	1		
Smear from face for anthrax bacilli	1		
Instruments for anthrax bacilli	1		
Pharyngeal mucus for tubercle bacilli	1		
Vomitus for blood	1	Traces of blood present	1
TOTAL	10,031		

TABLE P.—II.

RESULTS OF EXAMINATIONS OF SPECIMENS FROM VENEREAL DISEASES CLINICS.

District	Wassermann Reaction Blood	Useless	Number Positive	Weakly Positive	% Positive	Smear	Gonococci found	% Positive
Nicosia	2,352	122	580	170	33.6	412	119	28.8
Limassol	611	15	198	45	40.7	101	53	52.4
Larnaca	529	15	119	41	31.1	216	79	36.5
Famagusta	635	11	178	49	36.3	139	74	53.2
Paphos	346	25	100	24	38.6	139	46	33.0
Total	4,473	188	1,175	329	35.0	1,007	371	36.8

APPENDIX D.

ANNUAL REPORT UPON THE WORK OF THE GOVERNMENT LABORATORY FOR THE YEAR 1936.

By L. Ch. Haralambides, *Acting Government Chemist.*

Before beginning the report on the work done in the Government Laboratory during the year, I consider it my duty to mention the promotion and transfer of Dr. S. G. Willimott to Singapore.

Dr. Willimott was Government Analyst of this Colony for the last seven years. He left us for his new post on 7th November, 1936, and from that date onwards, the Assistant to the Analyst acted as Government Analyst. The Government Analyst was on leave from 1st to 8th January, 1936, during which time the Assistant Analyst acted again as Government Analyst.

There was no other change or promotion of staff during the year.

The total number of samples analysed during the year was 1,671 as compared with 2,062 analytical samples in 1935. The total analyses for the year 1936 and those of the previous decade are compared in Table I.

Table I.—Total Analyses made during the Last Decade.

Year	*Total*	*Year*	*Total*
1926	1,999	1932	2,428
1927	1,850	1933	2,342
1928	4,805*	1934	2,355
1929	1,713†	1935	2,062
1930	1,546	1936	1,671
1931	1,812		

The samples for the year 1936 may be divided into official and non-official samples and classified under the different headings shown in Tables II and III.

Table II.

Official Samples.

Food and Drugs	849
Criminal	144
Waters	78
Agricultural and Industrial	146
Investigations	233
Customs and Excise	2
Dangerous Drugs	1
Biochemical	1
Miscellaneous	203
Total	1,657

Table III.

Non-Official Samples.

Animal Viscera	7
Waters	5
Soda	2
	14
Total Table II	1,657
Grand total	1,671

The samples falling under the different headings are considered in some detail in the following sections:—

1. Food and Drugs.

For the purpose of the administration of the Food and Drugs Law, the Island is divided into six separate districts. Table IV shows the total number of samples analysed and the percentage of adulteration found within each of the districts.

Table IV.—Adulteration in the Districts.

District	*Samples analysed*	*Genuine*	*Adulterated*	*% Adulterated*
Nicosia	170	162	8	4.7
Famagusta	106	94	12	11.3
Larnaca	170	156	14	8.2
Limassol	145	138	7	4.7
Paphos	209	200	9	4.3
Kyrenia	49	48	1	2.0
Total	849	798	51	6.0

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* Includes 3,344 pathological samples.

† Includes 678 pathological samples.

The total number of 849 is extremely low and represents a decrease of 461 samples compared with the total of the previous year. The general adulteration rate of 6.0 per cent. shows an increase, compared with the 3.6 per cent. of the previous year's rate. And it is very probable that this rate would have been still higher had a greater number of official samples been taken. In a Colony, like Cyprus, with about 365,000 inhabitants, no less than 2,000 to 3,000 samples at least should be taken and submitted for analysis under the Food and Drugs Law, and I venture to suggest that the fund available for this purpose should be increased accordingly.

As in previous years, the adulteration in Kyrenia District is very low, and in the Districts of Famagusta and Larnaca is rather high. For the Nicosia District nothing can be said as only 170 samples have been purchased and so the figure 4.7 per cent. cannot be regarded as a representative rate.

As usually, the favourite articles of food for adulteration are coffee and olive-oil. The only known method of adulteration of coffee in the Island is with cereals and legumes which have to be properly roasted and ground. Owing to the big difference in price between coffee and cereals, large profits are made by this kind of adulteration. Another article of food which is badly adulterated is olive-oil, especially during the year under report, when the harvest of olive-oil was very poor. The usual adulterants of olive-oil are different imported cheap vegetable oils and fats. Four samples of flour have been found to be decomposed and unfit for human consumption. Three samples of tinned-fish have been found to be in a state of putrefaction, and four samples of aerated waters have been found to be manufactured from impure water containing extraneous matter.

The number of prosecutions brought before the Court was 54, and the fines inflicted amounted to £33. 3*s.* 4*p.* As stated in previous Reports, the Laboratory did its best to safeguard the public health of the Colony in spite of many difficulties created by the out-of-date Food and Drugs Law. A modern Law with standards, for at least the principal articles of food and drugs has been prepared and will soon be in operation.

Table V gives the total number of samples of each kind of foodstuff and drugs examined for the whole Colony, with the proportion of samples adulterated :—

TABLE V.—FOOD AND DRUGS ANALYSED WITH PER CENT. ADULTERATION.

Sample	*Number*	*Adulterated*	*% Adulterated*
Flour	70	4	5.5
Bread	27	nil	nil
Biscuits	16	nil	nil
Corn flour	5	nil	nil
Baking powder	2	nil	nil
Rice	2	nil	nil
Macaroni	1	nil	nil
Milk	21	nil	nil
Condensed milk	20	nil	nil
Sour milk	1	nil	nil
Tea	53	nil	nil
Coffee	137	20	14.6
Olive-oil	70	17	24.2
Bean-oil	1	nil	nil
Butter	10	nil	nil
Margarine	7	nil	nil
Vinegar	13	nil	nil
Cheese	24	nil	nil
Sugar	60	nil	nil
Sweets	19	1	5.2
Salt	40	nil	nil
Pepper	25	nil	nil
Tomato paste	31	nil	nil
Mustard	2	nil	nil
Pickles	3	nil	nil
Jam	6	nil	nil
Lemonade	15	6	40.0
Sardines	50	2	4.0
Herrings	23	1	4.3
Quinine	27	1	nil
Aspirine	24	nil	nil
Castor-oil	22	nil	nil
Epsom salt	22	nil	nil
Total	849	51	6.0

2. CRIMINAL.

A total of 144 exhibits were examined on behalf of the Police in connection with criminal cases, classified in Table VI.

TABLE VI.—CRIMINAL EXHIBITS.

Exhibits in murder and stabbing cases	65
„ in rape and sodomy cases	15
„ in poisoning cases, and poisons seized from unauthorized persons	16
„ in arson cases	24
„ in counterfeit coins	7
„ in dangerous drugs	6
„ in forgery cases	5
„ in explosives	4
„ in accidents	2
Total	144

The number of exhibits submitted, shows a small increase compared with 114 exhibits of the previous year. The greatest number of articles arose again in connection with murder cases, thirteen of which have been submitted for investigation.

Seven suspected coins on examination were found to be counterfeit containing copper from 50 to 60 per cent.

In the Kyrenia District a case of the unlawful sale of poisons arose, and strychnine and arsenic were identified as the drugs in question and a conviction was recorded.

In human viscera sent from Xero, alcohol was detected. No poisonous substance could be detected in any of the other suspected material submitted for investigation.

In an arson case at Limassol, several pieces of cotton wool, found in the shop of the accused, were found to be stained with petrol.

As in previous years, expert evidence was given by the Government Analyst on 8 occasions, in the Magisterial and Assize Courts of the six Districts of the Colony.

3. WATER.

Altogether 78 samples, most of which were submitted in relation to proposed new supplies, were examined, of which 42 only were found to be pure potable water supplies. The other samples were either hard and saline, or contaminated with organic impurities. After many analyses it has been found that water supplies from mountains springs are fairly uniform all the year round, and nearly all such supplies have been found to be pure soft water. On the contrary, the waters of the valley vary greatly in composition during the different seasons of the year, and most of them are saline, hard, or contain excessive amounts of organic impurities.

4. CUSTOMS AND EXCISE.

Only two samples have been submitted for analysis, including a sample of starch, and a sample of Cyprus salt taken from the Larnaca Salt Lake. The analysis of the sample showed that the salt was very satisfactory.

5. SCIENTIFIC EDUCATION.

The usual examination for the Government Certificate in Chemistry was held at the Laboratory on the 14th February, and onwards. Twenty-one candidates presented themselves, of whom fourteen passed and were awarded the Government Certificate. The Papadopoulos Prize was awarded to Mr. P. Serafides. The sum of £42 was collected for examination fees and this amount has been paid into the Treasury.

The Government Analyst was Examiner on the Board of Examiners in Pharmacy for the Government Qualifying Certificate.

A course of 35 lectures was delivered by the Acting Analyst during the last two months to the School for Sanitary Inspectors, on elementary Physics and Chemistry, and especially on essential subjects (as they related to chemistry) of sanitary importance.

6. OTHER DUTIES.

The Government Analyst acted as President on the following Boards of Survey :—

(*a*) Agricultural Stores,
(*b*) Veterinary Stores.

The following official reports were prepared, submitted to Government and published.

(*a*) Annual Report of the Government Laboratory for 1935.
(*b*) A study on Colocasia Antiquorum (*Cyprus Agricultural Journal*, Vol. XXXI, September, 1936).
(*c*) Report on an Investigation of Indian Hemp.

7. Agricultural and Industrial.

Under this heading 146 samples have been analysed including different Cyprus products, oils, terra verta, etc. A sample of tung oil was extracted in the Laboratory from tung fruits sent from Polis tis Khrysokhou plantation, which on analysis has been found to be very satisfactory. Several samples of Cyprus olive-oil (fresh and old) have been analysed, but except in a few cases all the samples had a very high acidity.

8. Miscellaneous.

Under this heading I deal with a variety of samples not falling under the previous headings.

Twenty-five samples of alcohol have been examined for the control of the alcohol supplied to the Department.

Several samples of brackish waters taken from the Kyrenia coast, the Larnaca Salt Lake, and the Kokkinokhoria coast, have been tested for their salinity in an attempt to find out the strength of salinity in which different kinds of mosquitoes will breed.

Four samples of lime sent by the Forest Department have been analysed. The lime burned at Polis tis Khrysokhou was found to be the best containing 71.7% of calcium, and the one at Phiti was the poorest, with 58.3% of calcium.

Two samples of paris green have been submitted by the Rockefeller Foundation which on analysis were found to contain different percentages of free arsenious oxide. Samples of water were also examined which had been taken from streams treated with paris green and kerosene by the Rockefeller Foundation. The analysis was undertaken to find out if sufficient paris green had been dissolved in the water to be dangerous to animals drinking the water. The analysis showed that the water was free from arsenic.

Five exhibits have been analysed for the Veterinary Department for poison, in none of which poison could be detected. Several samples of legumes, starches and raisins have been analysed to obtain information for the preparation of a cheap and nutritious mixed bread. Samples also of wheat and barley flour have been submitted from the Central Prison for determination of their fuel values.

Two samples of imported wheat submitted by the Inspector of Produce, Famagusta, on examination were found to be badly damaged by smut. The samples were also musty and unfit for human consumption.

Different samples of stones and powders were examined for the Museum, as well as several other ancient copper articles to determine their composition. Six specimens of slag have been analysed for the information of the Mines Department.

One powder suspected to be a dangerous drug on examination was found to be aminocaine, and another was identified as morphine.

9. Revenue and Expenditure.

Revenue		*Expenditure*	
Government Analyst's fees	£15 15 3	Chemicals and apparatus	£44 14 3
Chemistry fees	42 0 0	Lighting, heating, etc.	36 12 4
Fines under the Food and Drugs Law	33 3 4		
Total	£90 18 7	Total	£81 6 7

10. Value of Work Performed.

Category	*Amount*
Food and Drugs	£891 9 0
Criminal	302 8 0
Waters	327 11 0
Miscellaneous	1,140 6 0
Private work	15 15 3
Chemistry fees	42 0 0
Total	£2,719 9 3

11. Investigations.

As stated in the Annual Report for 1935, certain amounts of raw opium and hashish have been seized by the Customs Authorities of Limassol. The raw opium weighing 33,565 kg. in 27 packets had been delivered to the Director of Medical Services to be used by the Medical Department. On the request of the Director, several packets have been analysed by the Government Laboratory. Although the drug appeared to be wet and not pure several packets have been found to contain from 8 to 9 per cent. of morphine. 15 packets weighing 17.55 kg. have been fully analysed. The packets containing 8 to 9 per cent. of morphine were carefully selected, dried, and converted into very fine powder from which, after several analyses and treatments, 5,500 kg. of pure Pulvis Opii have been prepared. The poor specimens of the raw drug had been converted into 8 litres of

Tr. Opii and 2,500 litres of Tr. Camph. Co. All the above drugs after complete physical, chemical, and physiological tests have been found to be very satisfactory and compared very favourably with the corresponding imported drugs. All these have been handed over to the Medical Storekeeper on the request of the Director of Medical Services, and it is expected that under normal circumstances they will cover the needs of the Government dispensaries of the whole Island for three or four years.

Several poppies collected from the Paphos District, on analysis have been found to contain opium. A sample of opium extracted from such poppies has been analysed and found to be very satisfactory. It had a very characteristic smell and contained 8.5 per cent. of morphine. These poppies are cultivated to some extent in the Paphos District but there is no evidence that these plants are used for extracting alkaloids. In certain villages, the villagers prepare a decoction after boiling the poppies, and from this they give their children one or two teaspoons to induce sleep.

Owing to the question of the possibility of preparing hashish in Cyprus, different analyses have been carried out on Cyprus Indian hemp. Specimens of fruiting tops of female plants of the hemp crop were collected from different crops in the hemp growing area of Paphos. Specimens of seeds, capsules, leaves and stems were examined, after careful drying and removal of the chlorophyll. The resulting resins have been found to give distinct reactions for hashish, although the quantity in each case was very small. The hemp plant is cultivated in the Paphos District as a field crop for the production of hemp fibre, the seeds being used as spices. The plant is unknown to the majority of the Cypriot villagers, and in no case did they seem to be aware of its narcotic properties. After enquiry in the different villages of the hemp-growing area in Paphos it has been ascertained that the interest of the villagers is confined to the hemp fibre and seeds. The possibility of a low grade hashish production, at some future time by experienced people from outside Cyprus, does exist, and the continued vigilance of the Police is fully justified.

12. STAFF.

I have much pleasure in thanking the small staff of the Government Laboratory for their loyal assistance and co-operation.

APPENDIX E.

EXTRACT OF THE REPORT ON THE WORK OF THE INTERNATIONAL HEALTH DIVISION OF THE ROCKEFELLER FOUNDATION IN CYPRUS, 1936.

By W. K. Stratman-Thomas, M. A. Barber and J. C. Carter.

1. SPLEEN AND BLOOD SURVEY OF CYPRUS IN 1936.

In 1936, approximately one-fourth of the villages of the Island were surveyed. The individuals examined were, with few exceptions, children between one and fifteen years of age. During August a survey was made of special regions about the places considered for proposed landing fields in the event that a contigent of the Royal Air Force is to be stationed in Cyprus.

Results of the spleen and blood survey are given in Table 1.

Table 1.—Results of Spleen and Blood Survey.

District	Spleen								Blood						
	P	1	2	3	4	T s	No exam.	% s	V	F	M	Mi.	T +	No. exam.	% +
Nicosia ..	144	348	205	50	2	749	3,347	22.3	307	219	94	23	643	2,425	26.5
Kyrenia ..	116	165	82	20	4	387	1,457	26.5	194	141	31	16	383	1,398	27.3
Larnaca ..	7	31	10	3	1	52	231	22.5	20	16	14	8	62	237	26.1
Paphos ..	143	276	177	54	3	653	1,928	33.8	213	142	70	37	462	808	57.1
Limassol ..	48	257	104	17	2	428	1,955	21.3	289	175	89	37	590	1,821	32.3
Famagusta ..	32	35	14	3	—	84	1,449	5.7	56	17	14	4	91	1,438	6.3
Total ..	490	1,112	592	147	12	2,353	10,367	22.8	1,079	710	312	125	2,231	8,127	27.4

The Spring 1936 survey chiefly concerns rural malaria and is based on the examination of village children, most of them of school age. The spleen index was determined with the child in the recumbent position, and the classification is that of Hackett.

It was noted that very high and very low indexes may be found in the same immediate region. The difference seems to be due to the presence or absence of " open " water persisting well into the warm months of the year. By " open " water is here meant that situated at the surface and exposed to the air, and does not include water in wells and cisterns. This open water may include ponds or lakes or streams, the latter sometimes reduced to a mere trickle. Ponds and streams may be brackish or " bitter," and still productive of both *elutus* and *superpictus*. A very little water in uncontrolled localities may be productive of a great deal of malaria.

A few generalizations are attempted :—

1. In the District of Kyrenia indexes are usually high in spite of the limited amount of water, none of which is suitable for *elutus*.

2. Indexes are high in villages near the Salt Lake at Limassol and the fresh water pond near Morphou Bay, where both *superpictus* and *elutus* are found.

3. In the region between Nicosia and Morphou Bay and near the Ovgos river indexes are generally high. They vary according to the nearness to the Ovgos river and to certain other smaller streams.

4. In Paphos District along the Dhiarrizos river indexes are generally high although but little *elutus* is found above the neighbourhood of the sea.

5. Villages in the mountains may have a good deal of malaria. A group consisting of the villages of Korakou, Evrykhou, Tembria, Kaliana, Sina Oros, Galata and Kakopetria

is shown on the map.* They lie between Troödos and Morphou Bay, and on the Karyotis river, a large stream flowing along the road to Troödos. This stream and its tributaries are productive of *superpictus* and *bifurcatus*. The elevation of these villages varies from 1,000 feet to 2,200 feet above sea-level ; the malaria parasite index varies from 4.5 to 41.4. It will be observed that the malaria index of these villages does not consistently vary with altitude ; some with lower indexes are farther down the mountains than those with higher. Generally mountain villages have lower malaria indexes than those of the plains having equal exposure to water. It will be observed that the spleen index of these mountain villages is almost always below the parasite index.

6. A region of comparatively low indexes occur between Nicosia and Famagusta Bay. In this region permanent streams are comparatively few ; water is mostly furnished by wells. Nowhere else in Cyprus can one find so large an area with no malarious villages in it. There is a large fresh water lake near Famagusta which is pumped dry every spring and causes little or no malaria. During years when the reservoirs, Kouklia and Akhyritou, contain much water during the warm months, careful control of them is necessary. It will be observed that some villages at the border of plain and mountains (*e.g.* Kalyvakia, Kornokipos and Trypimeni) have high malaria indexes. In most cases more or less permanent water is furnished to them by mountain streams.

Up to July, 1936, we have examined blood specimens of 5,016 children 1 to 15 years of age from 109 villages all of the spring survey of 1936. These give a parasite index of 34.4. The spleen index of the same children is exactly the same 34.4. All persons of the spring survey of 1936 thus far blood examined, including 196 adults and 607 infants, give a total of 6,001 from 116 villages with a parasite index of 31.5 and a spleen index of 29.7. These indexes represent fairly well the malaria prevalence in the villages of Cyprus. When all examinations are finished, including all the villages of the plain between Nicosia and Famagusta Bay, and all the mountain villages, the average indexes may be somewhat less. If one includes in a survey the large towns, Nicosia, Famagusta, Kyrenia, Larnaca, Limassol and Paphos, where much control work has been done, the average would be much lower.

It is quite possible that relatively high parasite indexes are associated with more recent epidemics, or, at all events, with recent periods of high transmission, and that the predominance of the parasite indexes in the Cyprus survey of the spring 1936 may be in part due to the relatively high malaria of the summer of 1935. It will be interesting to see if a dry year or if the application of control measures will be followed in Cyprus by an increase in the magnitude of the fraction $\frac{\text{spleen index}}{\text{parasite index}}$. In some villages, the malaria history of which is known, the excess of the spleen index over the parasite index can be explained.

In Kochati a spleen index of 100 per cent. was found, the parasite index being only 35.9. Some of the children of the village had received treatment with quinine and atebrin.

In Prastio the spleen index was 60 per cent., the parasite index only 18.9 ; the parasite index of this village in the summer of 1935, however, was 46 per cent. It is probable that transmission in this village has decreased and that the parasite index is falling more rapidly than the spleen index.

In the plain between Nicosia and Famagusta Bay both parasite and spleen indexes are low. So far as the history of this region is known, it appears that there has not been a high prevalence of malaria there for several years.

It is evident from this survey that a survey based on spleen examination alone will in Cyprus give a good general measure of the degree of malaria in the several villages, but may give but little information as to whether a high index is due to a recent or to a more remote period of high transmission. For mountain villages it may be advisable to determine the blood parasite index as well as the spleen index—the latter including spleens barely palpable, as well as those more enlarged. An analysis of the parasite and spleen findings, including the determination of the proportion of large and small spleens, the degree of infestation with parasites, the species of parasite, especially the *falciparum* index, may give additional information regarding the malaria history of these villages. As regards the value of the *falciparum* index an autumn survey is superior to that of spring. In the present survey the proportion of *vivax* exceeded that of any other species of *Plasmodium*—the common finding in spring surveys. Three villages in mid-July showed a much higher frequency of gametocytes of *falciparum* (crescents' than villages surveyed in the spring.

Verified *P. vivax*, the *P. falciparum* and *P. malariæ* infections have been found at altitudes above 4,000 feet. The spleen and parasite rate is highest between 1,000 and 1,500 feet above sea-level. The parasite and spleen rate follow each other closely from 0 to 2,000 feet ; at higher altitudes there is more divergence, the parasite rate being considerably higher than the spleen rate as is shown on the following graph :—

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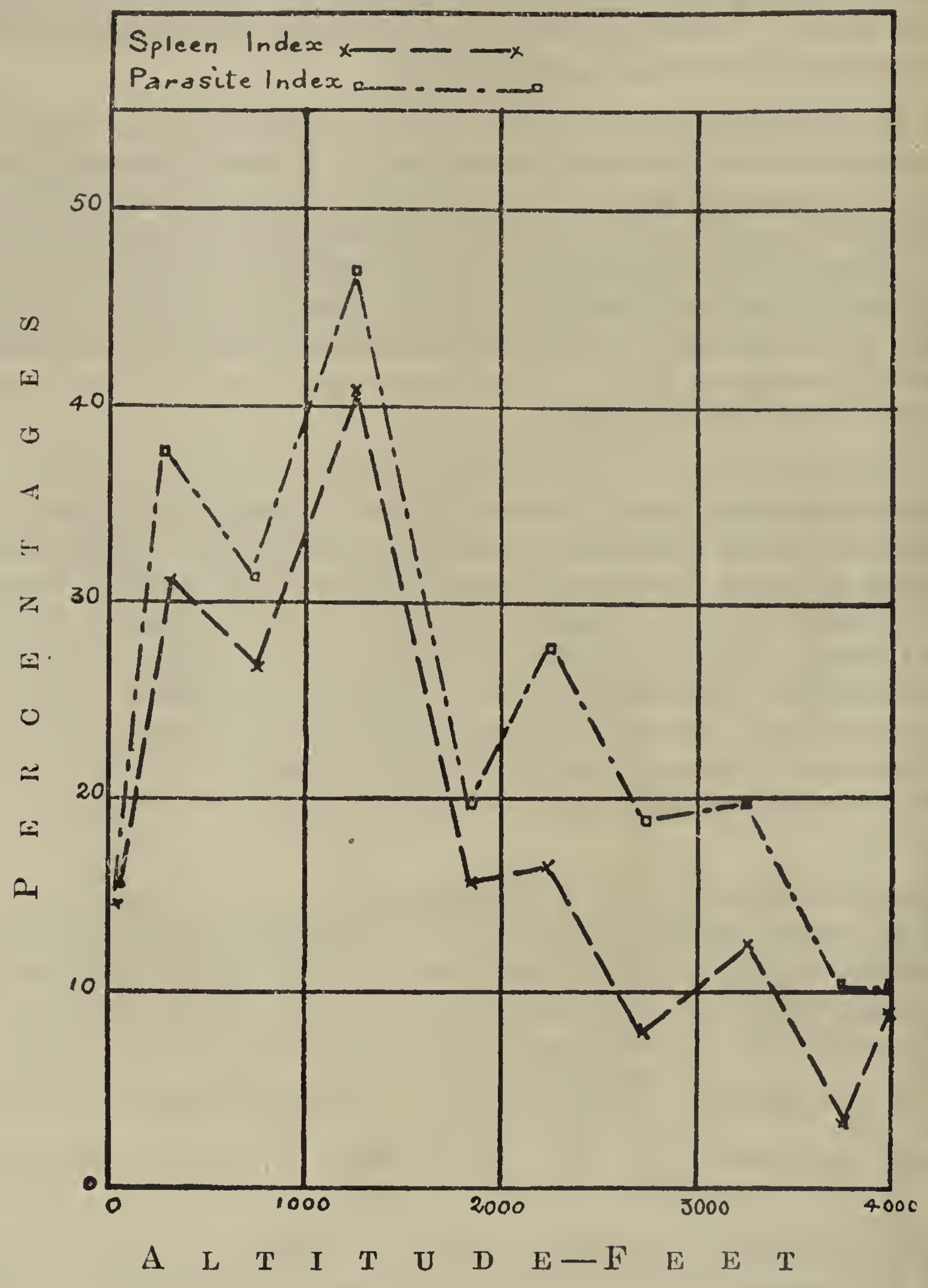
* Not reproduced.

SPLEEN AND PARASITE INDICES FOR ALTITUDES FROM SEA-LEVEL TO 4,000 FT.



2. IMPORTANT ANOPHELINE VECTORS AND THEIR BREEDING PLACES.

The topography of the Island determines the breeding places of the anopheline vector in a striking manner. *A. elutus* and *A. superpictus* are the chief malaria carriers in Cyprus, the latter breeding for the most part in the mountain streams, the *elutus* in the marshes some of which, such as the marshes about the Limassol and Larnaca Salt Lakes and the Syrianokhori swamp, are of first importance from the malaria and economic standpoint. Other *elutus* breeding places in the Island according to districts are :—

Nicosia District :

(1) Marshes near Pendayia and Karavostasi, and

(2) Certain parts of the Ovgos river.

Larnaca District :

(3) Marshes near Livadhia to Voroklini ;

(4) The swamp at Athienou which has been partly drained ; and

(5) The area between Anaphotia and Mazotos.

Famagusta District :

(6) The fresh water lake near the village of Ayios Loukas ;

(7) The Paralimni lake south of Famagusta. Both these lakes have been drained for a number of years. The fresh water lake is pumped dry every spring before the season of

malaria transmission begins; the Paralimni lake has been drained incidentally to the digging of a chain of wells which were primarily constructed to supply water for irrigation. Land has also been reclaimed by the Medical Department from the—

(8) marshes between Ayios Yeoryios and Spathariko by the use of open drains but it is still necessary to use some sort of palliative control.

(9) the series of reservoirs which were built in 1901 in an attempt to collect the water of the Pedias and Yialias rivers to supply water for irrigation purposes. These reservoirs have never been a sucess because the supply of water is inadequate during the season of the year when the water is needed the most. From the standpoint of *elutus* control it has been necessary to empty these reservoirs before 1st April after which procedure small marshes are left which necessitate palliative treatment.

PAPHOS DISTRICT:

(10) The marshes at Kato Paphos; and

(11) The swamp south of the main road between Yeroskipos and Kouklia.

KYRENIA DISTRICT:

(12) Certain temporary marshes between Ayios Ermolaos and Skilloura.

Contrary to the spotty distribution of *elutus* breeding, *superpictus* is present over nearly all of the Island. It is present all over the mountainous parts of the Paphos, Limassol, Larnaca, Nicosia and Kyrenia Districts wherever and whenever a small stream is flowing at the bottom of a ravine. *Superpictus* adults have been found at altitudes of over 4,000 feet. In the Famagusta District *superpictus* is found in similar localities along the Kyrenia range to the north and as it continues through the Karpas to Cape Andreas. *Superpictus* breeding, however, is not confined exclusively to the mountainous part of the Island but is also present in the rivers that traverse the level plain of the Mesaoria.

A. bifurcatus like *A. elutus* has a spotty distribution throughout the Island. In the Famagusta District *A. bifurcatus* is chiefly found in wells used for irrigation. It is also to be found in the mountain streams in the Troödos and Kyrenia ranges. Infected *bifurcatus* were found at Kakopetria.

RELATIVE IMPORTANCE OF THE ANOPHELINE VECTORS.—The high infection rate of *A. superpictus* in Cyprus together with the fact that the topography of the Island creates a preponderance of *superpictus* breeding places makes this anopheline the most important malaria vector. The mountain streams and rivers wherein it breeds are difficult to control permanently by any sort of engineering procedure because a torrent of a magnitude hitherto unknown is likely to destroy the construction. The same difficulty is had by the Public Works Department in the building of bridges over these streams in that they have difficulty in knowing the flow of water they must take into consideration. Training the stream to run in a single channel and subsequently treating the seepage to the side of this channel with Paris Green is the only procedure utilized in Cyprus at present. This procedure is expensive and laborious and must be repeated after every rain. *A. elutus* is of secondary importance because its breeding is restricted to marshes near the shore, and because methods of controlling *elutus* breeding by permanent drainage have been worked out. The drainage of Limassol Salt Lake area or the Syrianokhori marsh will be a much easier problem than the control of a rather small *superpictus* stream such as the Karyotis river running north from Kakopetria. The importance of *A. bifurcatus* as an anopheline vector in Cyprus has not been determined. In places in the Famagusta District where it is the only anopheline reported the malaria incidence is low and it is doubtful if it occupies much of a place in malaria transmission in this Island.

The situation in Cyprus is primarily a problem of the control of *A. superpictus*. To say that more than four-fifths of the malaria in the Island is transmitted by *A. superpictus* would be a conservative statement. The *elutus* breeding places are few but their relatively large areas make them of economic importance. The *elutus* areas can be easily drained provided funds are available. With *superpictus* streams, however, the control problem is still experimental and permanent engineering methods must be devised or some method of biological control must be found before any measure of success can be obtained. The fact that the big problem in Cyprus is almost entirely one of rural malaria is another difficulty to be overcome. The high morbidity rate due to malaria occurs in the summer season when the Island is almost an arid desert. The reason why there is such a high malaria incidence in Cyprus, despite the lack of rainfall during the season of greatest malaria transmission, is because the mountain streams during the hot summer months are reduced to mere trickles of water, and in the warm water of the small pools on the margins of these low-moving streams are ideal breeding places for *A. superpictus*.

3. SEASONAL INCIDENCE OF MALARIA TRANSMISSION.

During the first part of 1936 studies on the season of malaria transmission were made by Dr. M. A. Barber. A summary of his findings follows :—

SEASONAL INCIDENCE OF MALARIA TRANSMISSION. ENTOMOLOGICAL FINDINGS.—*A bifurcatus* and *A. hyrcanus* are common in Cyprus during the winter and early spring. They probably play a minor role in the transmission of malaria in Cyprus, at all events during spring. Certain findings on *A. elutus* and *A. superpictus*, the chief vectors of Cyprus, are shown in Table 2 :—

TABLE 2.—SPRING DEVELOPMENT OF *A. elutus* AND *A. superpictus*, 1936.

	Elutus	*Superpictus*
Immature larvæ found ..	Up to II stage, Limassol, 13th March. ..	Up to I to II stages, Pyroi, 7th March.
First emergence from pupæ collected in the open ..	Asomatos	Pyroi, 27th March.
First males found in stables or caves	Syrianokhori	Souskiou, 9th April.

Abundant breeding in certain localities during the first third of April in both species.

It is noted that abundant production of both *elutus* and *superpictus* occurs early in the season and at about the same time. There seems to be no lag in *superpictus* as is the case in Greece.

Early in March, larvæ of *superpictus* occurred abundantly at least two miles from the nearest village. Evidently in this species overwintering females range widely from villages in choosing places for oviposition. If one attempts to prevent or delay the appearance of the early broods of larvæ by early treatment of breeding places, such treatment would have to extend beyond the vicinity of overwintering shelters. A common shelter for overwintering females is the stables of villages.

TABLE 3.—THE SPOROZOITE INDEX OF CERTAIN SPECIES OF ANOPHELES IN 1936.

Numbers dissected, Numbers Positive and Percentage.

Month	*Elutus*			*Superpictus*			*Bifurcatus*		
March	41	—	—	187	2	1.1	36	—	—
April	43	—	—	100	—	—	6	—	—
May	788	5	0.6	209	3	1.4	14	—	—
June	130	10	7.7	239	1	0.4	2	—	—
July	100	2	2.0	256	7	2.7	—	—	—
August	35	3	8.5	678	70	10.3	11	2	18.1
September	—	—	—	276	24	8.6	35	6	17.1
October	28	1	3.5	41	1	2.4	—	—	—
November	214	7	3.2	28	1	3.5	—	—	—
December	366	8	2.1	22	—	—	—	—	—
Total	1,645	36	2.1	2,026	109	5.3	104	8	7.6

The dissections of anopheline mosquitoes begun by Dr. Barber have been continued throughout the year. The results shown in Table 3 demonstrate that the sporozoite rate is at its highest during the months of June through September. Infected anopheline were found from March through December, with the exception of the month of April which may be accounted for by the small number of mosquitoes dissected in that month.

Numbers dissected are too small to compare adequately different months, but we may deduce from the tables :—

(1) that infection may be found in *superpictus* in March, probably persisting from the previous year in overwintering females.

(2) Infections in this species may occur in May and June and that the July index approached the high sporozoite index found last year in mid-summer.

(3) Infection of *elutus* occurred in May and in certain highly infected localities reached a high percentage in June. It is quite probable that many of the inhabitants of certain villages are infected before the first of July, as proved to be the case in Macedonia.

SEASONAL INCIDENCE OF THE TRANSMISSION OF MALARIA.—*The Parasite Index of Infants.*—In Table 4 are shown certain malaria indexes of infants, all based on the surveys of the spring 1936. We include in this table the results of only highly malarious villages, that is, those with at least one infant infection, since our aim is the comparison of seasons rather than the determination of the total transmission index of the Island.

Table 4.—Blood and Spleen Examination of Infants.

In the columns under " Period of Exposure to Infection " are included certain months of 1935 and 1936. The numbers born in various months are indicated by figures; for example, of infants listed in the first line, 13 were born in January, 1935, 7 in February and 20 in March. Subsequent additional months of exposure to infection are indicated by the symbol +. An attempt is made to include in each line infants with approximately the same amount of exposure. Some lines consist of summaries. For example, the fourth line contains the summary of all infants, 116 in number, who were exposed during the warm months of 1935. It is obviously difficult to make the groups exactly comparative and to include significant numbers in them, for birthdays occur every month and surveys were not all made at the same time in the spring. A few in the lower groups may have lacked the full May exposure. Those in the last group were all examined in early June.

Period of Exposure to Infection *																	Result of Examination									
1935												1936					Blood (Parasites)						Anæmia, Polychromatophilia or Basophilia		Spleen	
																	No. Ex'd.	No. Pos.	% Pos.	Species of Parasites						
Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May				V	F	M	No. Ex'd.	% III & more	No. E'xd.	% enlarged spleen
13	7	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	40	21	52.5	12	8	1	40	30.0	30	60.0
		20	22	8	11	+	+	+	+	+	+	+	+	+	+	+	61	34	56.6	20	11	3	61	22.7	51	62.7
					11	7	19	9	+	+	+	+	+	+	+	+	46	20	43.5	12	7	1	46	26.1	36	47.2
13	7	20	22	8	11	7	19	9	+	+	+	+	+	+	+	+	116	61	52.6	38	19	4	116	28.4	91	56.0
									18	28	+	+	+	+	+	+	46	7	15.2	4	3	—	46	6.5	28	57.1
											31	25	26	+	+	+	82	3	3.7	2	1	—	82	6.1	59	23.7
														26	+	+	26	3	11.5	2	1	—	26	23.1	18	16.6
															17	+	17	—	—	—	—	—	17	11.8	11	9.1
																17	17	1	5.9	1	—	—	17	—	12	—
														Total..........			304	75	24.7	47	24	4	304	12.8	219	38.8

* Figures show numbers born in the months indicated.

+ Additional months of exposure to infection.

In summarizing the results, the parasite index only is considered. The spleen index runs parallel to the parasite but at a higher level. Healthy infants may have palpable spleens, and the parasite index is the more reliable index of malarial infection in this age-group.

It appears that the bulk of infections takes place during the warm months of the year—June, July, August and September. Over half of the infants exposed during the warm months of 1935 and surviving until the time of the survey in the spring of 1936 were found to be infected. Infants exposed during the winter and part of the spring, December to April or May, show a low percentage, 3.7. In our April, 1936, surveys, 23 infants born on or after 1st November, 1935, were examined. There were no positives; while of 119 born in the same period and examined in May or in the first week in June, 1936, 6.7 per cent. were found infected. Winter transmission seems to be low, possibly nil if prenatal infection be taken into account.

The amount of spring infection varies, probably due to the smallness of the numbers in each category, but it is evident that such infections occur, certainly in the month of May. The inclusion of October and November making an autumn, winter and spring category, gives a percentage of 15.2, which is so far above the percentage of winter and spring that it seems probable that infection occurs in the autumn, but to a less degree than in mid-summer. These results agree very well with those obtained from infant surveys in Macedonia, except that there is more indication of autumn and spring transmission than is the case in Macedonia. The total number examined, 304, gives a percentage positive of 24.7. If we include infants of all villages, those highly malarious and not, we have 607 infants examined in the spring of 1936 with a percentage positive of 12.3.

The determination of the months during which the largest amount of transmission occurs is of much importance in the control of malaria in Cyprus and investigations of this matter should continue. The amount of larvæ-producing water in mid-July may be only a fraction ($\frac{1}{5}$ or less) of that of mid-April. A perfect programme of control should include the months March to October, inclusive, and possibly a part of November. If resources are much limited, however, and if it is necessary to greatly abbreviate the period of anti-mosquito work, control might be limited to the months of greatest transmission—June, July, August and September. The first application of larvicides might be done in mid-May to avoid too great an accumulation of adults in early June. It would certainly be worthwhile to experiment on a small group of villages by controlling breeding only during these warm months. Gametocytes of *falciparum* occur occasionally in the spring, but do not become abundant until June or July. Possibly a campaign limited to summer would greatly reduce the transmission of *falciparum*.

Certain villages (for example Souskiou and Asomatos) may show a much greater density of spring adults of both *superpictus* and *elutus* than does the average village. Such greater density is generally due to greater numbers of females overwintering in or near these villages. The numbers of such overwintering adults is greatest where autumn breeding is large. It may be possible to reduce or postpone these large spring broods by control of breeding in late summer and autumn. Also it is worthwhile to attempt their reduction by the destruction of overwintering females, especially in stables of villages.

In addition to infant surveys valuable information in regard to the seasonal incidence of transmission may be obtained by a survey of villages where breeding waters dry up in late spring or early summer.

4. CONTROL OF SUPERPICTUS-BREEDING STREAMS.

In Cyprus these streams vary greatly in the temperature and amount of water, amount of algæ, leafage, character of bottom and amount of shading. Water flowing over alga-covered stones is more difficult to treat since the current may carry away larvicides before they have time to affect the larvæ, many of which have dived below the surface; but streams of this type and the superpictus-breeding streams of this Island generally are quite suitable to larvicidal treatment.

So far as is practicable, *superpictus* streams should be trained, that is, the channel should be narrowed and the water confined to it. Even partial training, a process which in smaller streams requires relatively little time and expense, is worthwhile, because the breeding area is thus reduced. Usually in Cyprus, streams are undisturbed by summer freshets, and require but one training during the malaria season.

As an ultimate cure for both, mosquito-breeding and loss of water by seepage one looks forward to permanent channeling or tiling of these streams. For some years, however, there will be much water in the hundreds of miles of Cyprus streams which will have to be dealt with by larvicides and temporary training. Probably larvicides will never become indispensable, for some streams cannot be channeled temporarily or permanently and irrigation ditches and seepages will always have to be looked after.

We have done many experiments in various types of Cyprus streams and with various larvicides. In table 5 we list some of those which have proved more or less practicable. We use a sort of standard stream, the Atsas river, a clear stream of varying width but averaging about two feet broad, untrained, and with many side-pools and small "bayous." It flows over alga-covered stones, and forms a bright green belt in an arid, hilly region. It is more difficult to treat than the average small stream of Cyprus.

TABLE 5.—LARVICIDES PRACTICABLE IN SUPERPICTUS-BREEDING STREAMS.

Ck. No.	Larvicide	Cost delivered in Cyprus	How prepared and diluted	How spread	Approx. cost of materials for treatment of 1,000 ft. of Atsas river.
1	Paris Green	7½*d*. per ℔.	Kerosene water albumen 1–1,000 dilut.	Hudson or other sprayer	0.18*d*. * 0.15*d*.
2	Paris Green	7½*d*. per ℔.	Stream-side dust 1–100 dilut.	Dust sprayer	2*d*.
3	Paris Green	7½*d*. per ℔.	Stream-side dust 1–100 dilut.	By hand	1.1*d*.
4	Kerosene	2½*d*. per litre	Undiluted	From sprayer as fine mist or fine droplets	6.75*d*.
5	Motor-oil	1*d*. per litre	Undiluted	do.	2.3*d*.
6	Shell Anti-malarial larvicide	1*d*. per litre	Undiluted	do.	Approx. same as No. 5.

* See discussion below.

In the preparation for treatment by No. 1 in foregoing table, we prepare units of 1½ grams Paris Green, 5cc. of kerosene and a drop or two of castor oil. The use of 2cc. of kerosene (sufficient for most sprayers) instead of 5cc. would reduce the cost entry in the foregoing table from 0.18*d*. to 0.15*d*. The castor oil may not be needed in hot weather. At the stream, this unit is mixed with 1½ litres of stream water plus one or two cc. of white of egg or a little dried albumen. The addition of the last affords a more even mixture.

In treatment by Paris Green and dust, we use stream-side dust, usually very plentiful in Cyprus. We have distributed this by sulphur blowers or by hand. The hand distribution is the simpler method and is very effective. One does not have to transport or sift dust nor to be encumbered with a dust blower. One person can thoroughly treat a stream like the Atsas river walking at a rate of nearly one mile per hour.

Of these three kinds of petroleum products, kerosene, motor oil and the anti-malarial oil, used alone and not in mixture with Paris Green, kerosene proved to be by far the most effective, at all events, when spread rapidly in the form of a fine spray in streams like the Atsas. Although its cost in Cyprus is nearly twice as much as that of either of the other two, kerosene goes so much farther and is so much more effective that it is probably the cheapest in the end. These conclusions are based on comparative tests of measured quantities of larvicides and measured distances made in the same stream and on the same day. Kerosene or other oils may be very useful in streams where the use of Paris Green is impracticable.

Of the methods listed, we prefer for Cyprus No. 1 (Paris Green-Kerosene-water mixture sprayed) for localities where the cost of material is great. For localities where dust has to be stored and transported, it would be the preferred method. For nearly all streams of Cyprus, Method No. 3 (the 1–100 dilution of stream-side dust) and the spread by hand is far more preferable. Method No. 1 requires some sort of spraying apparatus and a labourer skilful enough to keep it clean and unclogged, while No. 3 is almost fool-proof. A common fault in the use of Paris Green is the employment of too much larvicide, an abuse easily avoided by giving proper attention to the dilution. The use of dust blowers instead of spread by hand does not correct this abuse. The criterion of the proper use of No. 3 should be the presence in a stream the day after application of large numbers of dead larvæ, very few or no living ones and the absence of remains of Paris Green. The final and most significant test is, of course, the absence of adult mosquitoes in village resting places.

We have tried making small dams and adding larvicides to the outflow of water when the dam is opened. We have also treated streams where the water level had been lowered by damming or the diverting of the flow. Neither of these methods gave superior results. If a stream is dried by more extensive damming the larvæ die—some of them being carried away by squads of ants before the algæ are completely dry. Too much stoppage of the flow of streams is inadvisable in Cyprus, where a small stream may be the jugular vein of the village fields.

Lowering of the stream by small temporary dams, however, has proved useful in estimating the number of larvæ in a stony, alga-covered stream. As the water-level falls, larvæ tend to leave their hiding places in the algæ and wriggle down to lower levels, where they may become more visible.

We have compared in the field and in the laboratory two types of Paris Green; one manufactured by Messrs. Hoyle, Robson, Barnett and Co. Ltd. of Newcastle, England, and furnished by the Imperial Chemical Industries of Great Britain, and the other manufactured by Ansbacher-Siegle Corporation of Germany and purchased by the Rockefeller Foundation. The cost of the first delivered in Cyprus is 7½*d*. (approximately 15 cts.) per pound, of the second 18 cts. per pound.

Dr. Willimott, Government Analyst of Cyprus, was kind enough to analyse the two samples for us. The German sample contains 55.4 per cent. of combined As_20_3 with 1.35 per cent. of free As 0_3; the English sample, 56.4 per cent. of combined As_20_3 and only a trace of the free trioxide. Our tests in the laboratory and in the field indicates clearly that the cheaper English type of Paris Green is quite equal to the German sample as a larvicide. A final test will be made at Cavalla, where finer particles of each type of Paris Green can be separated out with the one-cell pipette and tested. At present, we recommend the use of the cheaper kind as being fully as effective as is the more expensive.

5. ENGINEERING REPORT.

The following engineering works in their order of importance were accomplished:—

(*a*) A topographical survey and a map of the marshes in the vicinity of the Limassol Salt Lake were made and a preliminary scheme and estimate for their drainage were prepared. The marshes lie on a strip of land adjacent to the western shore of the salt lake, and are formed by the flow of water from a number of fresh water springs. The flow from the springs does not run off, but spreads out over the land owing to the small difference in elevation between the water level of the lake and the marsh, with the result that large wet areas and pools are formed.

(*b*) A topographical survey and a map of the Syrianokhori marshes were made and a preliminary scheme and estimate for their drainage were prepared. The Syrianokhori marsh is formed by the flow of fresh water from springs which are situated in a depression approximately three-quarters of a mile from the seashore. The elevation of the lowest part of the marsh is approximately eight feet above sea-level, so it is proposed to drain the marsh by means of open drains leading to the sea.

(*c*) Levelling and a longitudinal section of a 1-mile stretch of the Yialias river at Pyroi, and an experimental scheme and estimate for the subsoil drainage of this river bed by means of an open jointed pipe line. Work on the pipe line was commenced in June and was completed in October. One mile of twelve inch diameter concrete pipes, were laid at a depth of three to three-and-a-half feet below river bed level. The cost of the work was 120 Cyprus pounds which is equivalent to one shilling and four-and-a-half pence per yard run. The concrete pipes were made locally at Pyroi by means of tamping a mixture of one part cement and two-and-a-half parts sand into special steel moulds made locally. The mixing and tamping was done by piece work, and it was found that two men working with one mould could turn out thirty pipes two feet long in one day. The pipe line has fulfilled its purpose satisfactorily in that the summer flow of the water now takes place underground and the surface of the river bed is dry.

(*d*) Levelling and a longitudinal section of a 1-mile stretch of the Souskiou river bed with a view to draining the summer flow of this river bed by means of an open concrete or masonry channel. The cost of various types of channel were investigated and quotations called for. The work was not put in hand during 1936 as engineering supervision was not available.

REPORT ON THE PROPOSED DRAINAGE OF THE MARSHES IN THE VICINITY OF THE LIMASSOL SALT LAKE.

The Limassol Salt Lake marsh consists of two distinct marshy areas which for purpose of this Report will be called the lower marsh and the upper marsh. The lower marsh consists of a strip of land about one-half a mile wide and two-and-a-half miles long running parallel and adjacent to the north-western shore of the Limassol lake. The upper marsh commences south of the Akrotiri road and runs in a north-westerly direction. It is approximately two-thirds of a mile wide and one and three-quarter miles long. The marshes are under water during the winter and the greater part of the summer months due to the flow of water from numerous fresh water springs which are distributed throughout the area, and to some extent in the case of the lower marsh to the rise of water-level of the lake.

Investigations by the Medical Authorities of Cyprus have revealed that the wet areas of the marsh provide ideal anopheline breeding conditions from March to November and to this fact is attributed the high malaria rate in the villages of Asomatos, Akrotiri, Kolossi, Episkopi, Trakhoni and Zakaki, which are within flight range of the marshes. Larvicides have been used extensively to combat the breeding, but have been found impracticable owing to the density of the reeds which prevents the larvicide to spread and the prohibitive annual expenditure required to treat such a large area of marsh. Having regard to the prohibitive cost of larvicidal control the alternative is to drain the marsh and keep it dry from March to November inclusive. With this view in mind a topographical survey of the area to be drained was carried out in the summer season of this year.

The survey revealed that the elevation of the lower marsh is on the average five feet below sea-level and the elevation of the water-level of the lake is seven feet below sea-level in summer rising to four feet below sea-level in winter. The upper marsh ranges from five feet below sea-level to sea-level, and is covered by a dense growth of reeds which are used by the inhabitants of the surrounding villages in basket making. It is proposed to drain the water lying in the lower and upper marshes into the lake by means of open canalization which will be designed to keep the marshes dry during the mosquito breeding season. The efficiency of the canals depends on the water-level of the lake during this period, and it is probable that the water-level at this time is too high to allow the flow from any proposed drains to gravitate into the lake. It may be necessary, therefore, to instal a pumping plant and pump in order to depress the water-level of the lake artificially to an elevation lower than the outflow of the canals.

A scheme is put up for the construction of the canals and the cost of the pumping plant with an estimated cost of £8,371. 15*s*. 0*p*.

The drainage of the upper marsh will result in the reclamation of approximately 1,200 donums of marsh land which has hitherto been used by the inhabitants of Akrotiri in the cutting of reeds for basket making. This trade incidentally appears to be their principal means of livelihood and it is recommended that the land so reclaimed should be devoted towards a new means of livelihood for these people.

REPORT OF THE PROPOSED DRAINAGE OF THE SYRIANOKHORI MARSH.

The Syrianokhori marsh, which is situated south-west of the village of Syrianokhori, near Morphou, is a swamp, half a mile wide and a half mile distant from the seashore. Running parallel to the shore line the marsh begins near Syrianokhori and terminates some distance west of the village of Prastio. The greater part of this area is dry from the end of March to the end of November, but there are areas which remain under water until the end of July, and some are wet throughout the year. The marsh is formed by the flow of water from fresh water springs which spread out over the low parts of the marsh and lies there and finally evaporates. The low parts of the marsh are well above sea-level and it might be thought that the water should find its way to the sea ; this is prevented, however, by a series of ridges on the sea side of the depressions. Investigations by the Medical Authorities of Cyprus have revealed that the wet areas of the marsh constitute ideal anopheline breeding grounds during the spring and summer, and this affects the malaria rate in the villages of Syrianokhori, Ghaziveran, Nikitas, Prastio and Morphou. With the exception of Morphou the other villages are of little consequence and the drainage of this marsh is of more importance as a land reclamation scheme than as an anti-malarial measure. Larvicidal control has been employed extensively to reduce mosquito breeding but here again as in the case of the Limassol marshes the annual cost of controlling the whole marsh is prohibitive. It is recommended, therefore, that the Syrianokhori marsh should be drained and put under cultivation. With this view in mind a topographical survey of the Syrianokhori swamp was made this year and a scheme with plan and estimate has been prepared. It is proposed to drain the marsh by means of open earth channels discharging into the sea. It is not considered necessary to line the channels with concrete. The estimated cost of the scheme is £567.

REPORT ON THE MANUFACTURE OF CONCRETE PIPES FOR OPEN JOINTED PIPE DRAINING OF THE YIALIAS RIVER AT PYROI.

In 1936, it was decided to carry out experimental drainage works in the Yialias river near Pyroi, and after investigation, drainage by an open jointed pipe line was decided upon. Enquiries were made throughout the Island regarding suitable pipes for the job, and it was found that those available were too expensive and not strong enough for the purpose. As a result of the enquiries, information was received to the effect that concrete pipes were being made by the Phassouri Plantation at Limassol. These pipes were examined and found suitable. The Phassouri concrete pipes are made by means of compressing a damped mixture of cement and sand, in the proportion of 1 to 2½, into special steel moulds which were imported originally from Palestine. As soon as the moulds have been filled with the mixture of moist cement and sand, they are removed, and thus many pipes can be made in a day with one mould. A detailed account of making these concrete pipes is as follows :—

The only accommodation required is one large room or shelter 20 feet long and 13 feet wide. A suitable shelter which can be taken to pieces and re-erected is preferable, as batches of the required pipes can be cast all along the proposed pipe line, thereby saving the cost of transport of sand from a fixed place of making to the point where the pipes will be laid. The plant required depends upon the length of piping to be turned out per day, one mould, however, is capable of producing 50 linear feet of 12-inch diameter pipes.

The materials required are cement, sand and water. The cement should conform with the British standard specification factory. The sand should be clean, sharp and fine, and free from small pebbles. As the pipe line for which the pipes are required is usually situated in a river bed, where suitable sand is plentiful, there is no difficulty or great expense regarding the supply. Similarly, water may be obtained from the river bed.

The pipe moulds are made of steel, and consist of an inner and outer cylinder. The annular space enclosed by the two cylinders receives the concrete which finally becomes a pipe. The inner cylinder is made to contract by sliding out a conical strip of its walls. The outer cylinder is made in two halves, and the two semi-cylindrical sections are bolted together by means of six heavy bolts. The two cylinders are kept apart, and in position at one end, by means of a steel ring around which the extremities of both cylinders are tightened, and at the other end alignment is maintained by three legs attached to the outer cylinder which automatically fall into position and rest against the inner cylinder. Small circular openings in the outer cylinder are provided, which are used as a means to scrape holes in the outer walls of the pipe if perforated pipes are required. The circular openings are provided with shutters, which are kept closed while the concrete is being introduced into the mould.

In setting up the pipe moulds to receive mixture of cement and sand, the moulds should be placed with their axis vertical, on a smooth and level floor, or on a levelled wooden platform in the following manner :—

(1) Place a pipe mould ring on one of the wooden platforms.

(2) Place the end of the inner cylinder, with its conical strip removed, on the platform and inside the ring.

(3) Insert conical strip in inner cylinder and hammer home with a wooden hammer. This will have the effect of bringing the end of the inner cylinder hard up against the inner edge of the ring.

(4) Place the two halves of the outer cylinder carefully against the outer edge of the ring, and manipulate them carefully so that they fit snugly, then swing the bolts into position and tighten gradually until the joints between the two halves are touching and pressing against each other throughout. The moulds will now be in readiness to receive the concrete.

The mixture of cement, sand and water is done on the platform mentioned previously. The sand is poured on the platform and the cement over the sand to form a heap. This heap of sand and cement is mixed together dry by means of shovelling it from one end of the platform to the other and back, twice. The operation of turning over the mixture is then repeated and at the same time a small quantity of water is added, until such time as the mixture acquires the appearance of damp sand. Usually it is necessary to shovel the mixture from one end of the platform and back, twice, while the water is being added, in order to obtain a good mixture.

The proportions of cement and sand are by volume, one part of cement and two-and-a-half parts of sand. It has been found that approximately two cubic feet of the combined mixture is the economical quantity to be mixed at one time, when two moulds are being used. A greater quantity is apt to dry before being introduced into the moulds with the result that some of the mixture has to have water applied to it and be turned over again, which interferes with the initial setting of the cement. At Pyroi, petrol tin were used as volumetric measures, and the quantity mixed at one time consisted of one tin of cement and two-and-a-half tins of sand.

In order to test whether the water content in the mixture is correct, compress a handful of the mixture in the palm of the hand, if on releasing the compressed mixture retains its shape, the quantity of water applied is correct. If crumbling takes place more water should be added. The introduction and tamping of the cement and mortar into moulds after the moulds have been set up has been explained previously. A small quantity of the mixture is poured into the moulds through a wide circular scoop, and the mixture so deposited is thoroughly tamped by means of a steel tamper. This procedure continues until the annular space in the mould is completely filled. A steel ring similar to the one at the base of the mould is then placed over the heaped-up surface of the mixture at the top of the mould, and the mixture is compressed to the top edge of the mould by hammering the ring. The mould containing the concrete may now be moved to a suitable storage area, and then the mould may be removed from the concrete.

To remove the moulds from the concrete pipe great care must be exercised, as the slightest jar will cause the collapse of the pipe. Having placed the mould containing the concrete on a firm and level base, the mould is removed from the concrete as follows :—

(1) Remove by means of a crowbar the conical section of the inner cylinder. This causes a contraction of the inner cylinder.

(2) Now remove inner cylinder by grasping the two handles thereon and pressing inwards in order to cause a further contraction of the inner cylinder, and finally pulling upwards.

(3) The inner cylinder having been removed, remove the two sections of the outer cylinder. First slacken all the bolts one turn, when the two sections should commence to come apart, if no movement is apparent, slacken all bolts a further turn. After the two sections have commenced to come apart they should be pushed completely apart with the thumb and index finger of both hands, one hand to each joint at the base of the mould. The mould should now be removed and set up to receive the mixture for the next pipe.

(4) The concrete pipe now stands in an unset state and should be touched as little as possible. The ring at the top of the pipe should be removed very carefully, and the top edge of the concrete smoothed off with a piece of thin cardboard. It should be stressed that the concrete pipes for the first twelve hours after the moulds have been removed should be subjected to as little vibration or jar as possible, otherwise a large percentage of collapsed pipes will occur. The vibration of a passing car, or the impact caused by tamping in the making of the pipes may cause the fresh pipes to collapse.

The first watering of the concrete pipes is done twelve hours after the moulds have been removed, by means of a watering can with a very fine rose, at two-hour intervals, and continue for twenty-four hours when the pipes can be moved. It is of particular interest to note the quantity of water the freshly-made pipes are capable of absorbing. A watering can full of water when poured on top of the pipe will be completely absorbed and no water will reach the ground. After the first watering has been completed, the pipes are moved to a pool in the river bed, where they remain submerged in water for a period of seven days, after which they may be laid in the pipe line. If the pipes are to be stored, they should be kept in the shade and watered periodically.

APPENDIX F.

REPORT ON THE MENTAL HOSPITAL FOR THE YEAR 1936.

BY DR. S. LYSANDRIDES, *Medical Superintendent.*

GENERAL.—The year under review has been one of heavy work. The admissions as well as the total number of patients under treatment was the greatest ever recorded. This is due to the increase in insanity and also to the appreciation shown by the public of the work and improved conditions of the Mental Hospital. Apart from those who are admitted after Police action in consequence of various offences, quite a number of patients are voluntarily brought to the Mental Hospital by their relatives for treatment. The constantly increasing number of inmates, however, has resulted in a shortage of suitable accommodation. Last year a number of patients were discharged and placed under the care of their relatives. Dements or mental defects without hope of recovery, who were harmless to themselves and the community, and only require provision of food and lodging were selected for release. Care was taken that these patients so discharged were properly treated and looked after by their people. In this manner accommodation was made for cases likely to benefit by treatment as well as for others whom it was necessary to confine for their own safety and that of others.

STAFF.—The staff consisted of the following :—

The Medical Superintendent.
1 Head Warder.
10 Male Attendants.
5 Female Attendants.
1 Barber Attendant.
1 Cook.
1 Kitchen-boy.
1 Washerwoman.

I again record the valuable services rendered by the Head Warder, Mr. Antonios Stassinos, whose activity and willingness are indeed noteworthy. The Attendants in general also did their best to render satisfaction. Dr. J. Marcellos, the Honorary Dentist, was again very useful in treating many patients suffering with their teeth.

BUILDINGS.—It is with great pleasure that I record that the long-existing necessity for a hospital intended for inmates physically ill has been filled during the year under review. A really good building with two spacious wards, one for men and one for women, each with five beds, has been constructed for this purpose. In addition this building comprises a bath-room, a small kitchen, two lavatories and two rooms for nurses. There are also two private rooms, one male and one female, which are available on special payment. The two rooms in question are of course insufficient but it is hoped that once a start has been made they will in the course of time be increased as the necessity arises. I again repeat this year the recommendation that, on account of the steadily increasing number of patients, two more blocks for males and one for females be erected. This applies also to the construction of the Recreation Room the lack of which is at present very apparent. Patients have to spend the whole day in the open as there is no place where they can sit and occupy themselves, especially during winter time. The lack of at least two india-rubber padded rooms is a serious handicap and as far as I know, it is the only hospital of its kind that is without this indispensable equipment, and serious difficulties are daily encountered with violent and dangerous patients.

ESCAPES.—One male patient escaped on the 5th September, but was recaptured and brought back to the Mental Hospital by the attendants immediately after his escape.

STATISTICS.—Details of the number of patients treated during the year are shown in Table I. Causes of death are shown in Table II, and the different forms of mental disease are given in Table III.

GENERAL HEALTH—CASUALTIES.—In general the health of the patients and staff was good. Apart from the usual sporadic cases of malaria, cases of influenza were more numerous during the period of epidemic which broke out towards the end of the year. These cases were of light nature, short duration and without complications.

Cases of injury amounted to 57, of which 12 were self-inflicted, 18 were caused by other patients and 27 were the result of accidents, nearly the whole being from epileptic falls.

OCCUPATION AND AMUSEMENTS OF PATIENTS.—The system of employing all suitable and capable patients in various occupations, such as the upkeep and cleanliness of the hospital, nursing of other patients, gardening, washing, etc., was continued as in past years and not only had a beneficial effect on the patients, but assisted the running of the hospital. Some of the women occupied themselves with sewing, needlework and other handicrafts.

With regard to amusements, patients are kept, as long as possible, in the grounds of the hospital where they are free to amuse themselves as they prefer. A good number enjoy playing local games whilst others, fond of reading, avail themselves of the papers and periodicals provided in the reading-room. The greatest attraction, however, is our gramophone, to the music of which a number dance and sing. Smoking is allowed to all whose state permits it and cigarettes are provided free.

FESTIVITIES.—The annual Christmas festival luncheon was held on Christmas Day when rich and exceptional dishes as well as plentiful sweetmeats, confectionery and boxes of cigarettes were provided. Presents to patients were again distributed on this occasion and preference as usual was given to useful articles especially clothing. The cost of this luncheon and presents was borne by the Special Hospital Christmas Fund. On other festival occasions sweetmeats, candies and extra cigarettes were given to the inmates by some of our friends.

Religious Services.—Two Holy Communion Services were held for the Greek-Orthodox , one on the occasion of Easter and one for Christmas ; whilst for the Moslems two Religious Services were also held, one for each Bairam. On all these occasions the attendance was numerous and patients showed deep religious feeling. There being no special buildings, all the ceremonies were held in the visitors' room.

Table I.—Number of Patients treated during 1936.

	Males	*Fem.*	*Total*	*Males*	*Fem.*	*Total.*
Remaining in the Mental Hospital, 1.1.1936	..	..	..	122	63	185
Cases admitted :						
First Admissions	30	15	45			
Re-Admissions	11	8	19			
Total admitted during the year	..	..	..	41	23	64
Total under care during the year	..	..	..	163	86	249
Cases discharged :						
Recovered	11	8	19			
Improved	9	2	11			
Not improved	2	2	4			
Died	5	5	10			
Total discharged and died during the year		..	..	27	17	44
Remaining in the Mental Hospital on 31st December, 1936				136	69	205

Table II.—The Causes of Deaths.

Register No.	*Age*	*Sex*	*Form of Mental Disorder*	*Date of Admission*	*Cause of Death*
M. 393	50	M.	Acute Delirium	31. 1.1936	Collapsus.
F. 145	52	F.	Acute Confusional Psychosis	10. 2.1936	Collapsus.
M. 40	37	M.	Schizophrenia	8. 5.1923	Apoplexy.
F. 148	45	F.	Mania	13. 3.1936	Exhaustion.
M. 423	38	M.	General Paralysis	15.11.1936	Exhaustion.
M. 399	55	M.	General Paralysis	24. 3.1936	Exhaustion.
F. 17	39	F.	Dementia	2. 7.1925	Exhaustion.
M. 377	43	M.	General Paralysis	25. 7.1935	Exhaustion.
F. 119	37	F.	General Paralysis	17. 7.1934	Epileptiform attacks.
F. 149	55	F.	General Paralysis	18. 3.1936	Apoplexy.

Table III.—The Form of Mental Disorder Treated.

Form of Mental Disorder	Admissions			Discharges			Deaths			Remaining in Hospital		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Oligophrenia or Mental Deficiency (Idiocy, Imbecility, Feeblemindedness, Moral Insanity)	5	4	9	4	1	5	—	—	—	24	6	30
Schizophrenia or Dementia Præcox (Simplex, hebephrenia, Katatonia, Paranoides)	10	9	19	4	3	7	1	—	1	53	30	83
Paraphrenia, Paranoia	2	1	3	—	1	1	—	—	—	9	5	14
Manic—Depressive Psychosis (Mania, Melancholia, Stupor, Alternative)	6	5	11	6	5	11	—	1	1	9	6	15
Presenile and Senile Psychosis	1	—	1	—	—	—	—	—	—	5	2	7
Acute Confusional Psychosis	3	2	5	—	2	2	1	1	2	2	—	2
Alcoholic Psychosis	2	—	2	1	—	1	—	—	—	2	—	2
Epileptic Psychosis	5	—	5	4	—	4	—	—	—	8	6	14
General Paralysis of the Insane	3	1	4	1	—	1	3	2	5	6	1	7
Encephalitis Lethargica	1	—	1	—	—	—	—	—	—	4	1	5
Dementia, Secondary or Terminal	—	1	1	—	—	—	—	1	1	13	12	25
Borderline cases	1	—	1	1	—	1	—	—	—	—	—	—
Feigned Insanity	2	—	2	1	—	1	—	—	—	1	—	1
Total	41	23	64	22	12	34	5	5	10	136	69	205

APPENDIX G.

REPORT ON COMMUNICABLE DISEASES IN CYPRUS DURING 1936.

By Dr. C. S. Markides, M.D., D.P.H., *Health Officer.*

Infectious diseases usually prevalent in Cyprus are Malaria, Tuberculosis, Trachoma and Typhoid Fever.

E.C.S. Meningitis is included in this paper only as regards 1936. This disease makes its appearance in sporadic form with very few cases every year. It appeared in epidemic form, however, during 1888, 1908–1909–1910, 1936–1937.

Malaria and Tuberculosis are not included in this paper in detail having been dealt with elsewhere.

During the year under review the following infectious diseases have been notified :—

Disease	*No. of cases*	*Percentage on the total of infectious diseases*
Typhoid Fever	667	47.7
Chickenpox	303	21.7
Pulmonary Tuberculosis	280	20
Dysentery	51	3.7
E. C. S. Meningitis	38	2.8
Diphtheria	31	2.3
Measles	9	0.8
Scarlet-Fever	8	0.7
Acute Anterior Poliomyelitis	3	0.3
	1,390	100

Typhoid Fever.

Typhoid Fever occurs in the Colony in an endemic form due to the lack of proper sanitary conditions, especially in rural areas, where, without exception, the system of open yard latrine is the rule.

The rate of morbidity of Typhoid Fever varies from 5.1 to 18.16 per 1,000 population (average being 11.43). The increase in the figures should not be taken to represent the real picture, it being the result of more regular notifications on the part of private medical practitioners. This is shown by the percentage figures showing an increase in the morbidity rate for Nicosia and Kyrenia Districts in 1936, where, due to Director of Medical Services circular No. 2 of 1936, dated 13th January, 1936, M.D. No. 109/1931, requesting the co-operation of private medical practitioners in Nicosia and Kyrenia Districts, the notification of infectious diseases has been more systematic.

Chronic Distribution.

In all, 667 cases of Typhoid Fever have been notified during the year 1936. A distribution by district and month is shown in Table B.

The maximum seasonal prevalence for 1936 was January and September, although the disease occurred throughout the year in endemic form.

Age Epoch Distribution (*Table C*).

The disease shows a considerable preference for the lower ages, especially the 5–9 group, the incidence decreasing as the age increases. The susceptibility of children of 5 to 14 years is not observed in the older ages and in infants. The endemicity of the disease and the insanitary conditions of the rural country favouring a low and continual infection, give to the older age class a sort of natural so-called " immunity " (although acquired in reality). As regards infants, the limitation of food and movement, as well as other well-known factors, make them less liable to infection.

Sex and Race Distribution (*Table D*).

The disease has shown no preference for either sex or race.

Form of Prevalence.

During the year under review Typhoid occurred usually in endemic and sporadic form but in some villages, however, the disease assumed epidemic proportions.

Nicosia District.—Small epidemics were observed at Ayii Omoloyitadhes, Ayios Dhometios, Pendayia, Kaimakli and Evrykhou.

TABLE A.—TYPHOID FEVER, 1931–1936.

Rate per 10,000 Population by Districts during the last Six Years.

Year	*Nicosia*	*Larnaca*	*Limassol*	*Famagusta*	*Paphos*	*Kyrenia*	*Colony*
1931	9.7	4.7	3.9	0.5	5.2	0.4	5.1
1932	5.4	11.1	10.4	3	2.0	1.3	5.7
1933	10.2	19.1	39.4	4.5	8.6	11.3	14.8
1934	7.4	38.6	12.3	5.1	7.2	3.9	11.4
1935	19.4	20.7	12.6	11.3	9	11.6	12
1936	26.08	12.61	15.58	14.17	15.70	12.50	18.16
Aver. rate	13.03	16.13	15.86	6.43	7.95	6.83	11.43

TABLE B.—TYPHOID FEVER IN 1936.

Chronic Distribution by District.

Month	Nicosia	Larnaca	Limassol	Famagusta	Paphos	Kyrenia	Total per month	% per month
January	45	8	3	18	6	7	87	13.05
February	26	2	7	12	4	1	52	7.79
March	8	4	1	4	1	—	18	2.69
April	2	2	3	1	—	—	8	1.20
May	6	2	6	10	5	2	31	4.65
June	21	4	6	14	7	4	56	8.39
July	46	4	7	10	14	1	82	12.29
August	47	9	5	10	11	2	84	12.60
September	58	13	30	14	12	5	112	16.79
October	18	4	15	2	4	4	47	7.05
November	32	4	9	8	4	1	58	8.70
December	20	2	1	5	2	2	32	4.80
Total per district	309	58	93	108	70	29	667	100
Percentage per district	46.35	8.72	13.97	16.07	10.52	4.37	100	100
Morbidity per 10,000 population	26.08	12.61	15.58	14.17	15.70	12.50	18.16	—

TABLE C.—TYPHOID FEVER IN 1936.

By Age and District.

Age group	0	5	10	15	20	25	35	45	55	65	75	*N.R.*	*Total*
Nicosia	41	92	66	40	29	26	7	2	5	—	—	1	309
Larnaca	15	12	7	8	6	6	2	1	1	—	—	—	58
Limassol	7	17	19	18	12	13	5	1	1	—	—	—	93
Famagusta	21	34	22	12	5	8	4	1	—	1	—	—	108
Paphos	2	10	14	13	12	11	5	2	1	—	—	—	70
Kyrenia	3	7	8	5	1	3	—	1	1	—	—	—	29
Colony	89	172	136	96	65	67	23	8	9	1	—	1	667
% on the Total	13.1	25.6	20.4	14.4	9.8	10.0	3.4	1.3	1.4	0.2	—	0.2	100

TABLE D.—TYPHOID FEVER IN 1936.

Sex by District.

Sex	*Nicosia*	*Larnaca*	*Limassol*	*Famagusta*	*Paphos*	*Kyrenia*	*Total*	*% on Total*
Male	146	36	43	71	40	12	348	52.18
Female	163	22	50	37	30	17	319	47.82
Total per district	309	58	93	108	70	29	667	100

Only the Pendayia and Evrykhou outbreaks may be considered as real epidemics owing to the fact that 13 cases broke out in a period of two days.

Temporary isolation hospitals were established in both of these villages and the epidemic stopped immediately.

Both these outbreaks were fly-borne and due to bad sanitary conditions.

Larnaca District.—All cases were sporadic.

Limassol District.—20 cases occurred in Limassol town during September, 6 cases occurred at Pano Kividhes in June, and 8 cases at Vasa in September.

Famagusta District.—At Yenagra and at Lefkoniko there was a sort of epidemic due to infected vegetables from Kythrea where an outbreak had occurred in the previous year.

Paphos District.—All sporadic cases, especially at three neighbouring villages, Armou, Marathounda and Kissonerga.

Kyrenia District.—At Myrtou and Vasilia.

MEASURES TAKEN.

In addition to the establishment of temporary hospitals in various villages, where the disease occurred in epidemic form, the usual routine precautions were taken.

Continual propaganda as regards the necessity of latrines (dry pit type) for rural areas gave us, unfortunately, no measurable result. Several lectures on this subject were given especially in villages where the disease presented a considerable prevalence.

36 articles were published in the local papers concerning various hygienic subjects, and 6 lectures were given in different clubs in Nicosia, Paphos and Famagusta by me, following an invitation by the Committees and with the approval of the Director of Medical Services.

Anti-typhoid inoculation on a large scale was carried out during the year, although difficulties, occasioned by the reaction, had to be overcome. On account of the reaction a great number of persons inoculated refuse to turn up for the second injection to complete the inoculation.

During the year under review the following inoculations as shown in the following table have been made.

TABLE E.—ANTI-TYPHOID INOCULATION MADE IN 1936.

Village	Population	Inoculation 1st injection 0.50cc	Inoculation 2nd injection 1cc	Percentage	Local reaction observed	Percentage	Fever reaction observed	Percentage
Paliouriotissa ..	996	181	124	68.4	21	16.9	14	11.2
Engomi	639	111	98	88.2	24	24.4	28	28.5
Ay. Omoloyitadhes	—	178	128	71.9	11	8.5	11	8.5
Kaimakli	2,474	431	410	95.7	45	10.9	38	9.2
Strovolos	1,693	232	218	93.9	74	33.4	17	7.8
Ay. Dhometios ..	1,229	111	80	72	7	8.7	2	2.5
Evrykhou	965	304	272	89.4	205	67.4	155	50.9
Arm. Orphanage ..	420	221	221	100	80	36.2	60	27.1
Morphou Division	—	114	91	79.8	—	—	—	—
Kyrenia	—	144	79	54.8	—	—	—	—
Paphos District ..	—	126	83	65.8	—	—	—	—
Limassol	—	1,893	336	17.8	—	—	—	—
Perapedhi	—	124	105	84.6	—	—	—	—
Lefka Division ..	—	7	—	—	—	—	—	—
Total	292,937	4,177	2,285	54.4	467	25.6	325	18.2

MORTALITY OF TYPHOID FEVER.

Tables M.1, M.2, M.3, show the mortality from Typhoid fever during the year 1936, by district, age groups and sex.

Mortality by district has been highest in Kyrenia District (17.2%) and lowest in Larnaca District (1.7%).

Mortality by age group presents a higher degree in older ages especially among the group over 50 (18.2%) and among the group 20–29 (16.4%).

Mortality by sex shows a higher degree among females (7.5%) than among males (5.7%).

TABLE M.1.—MORTALITY OF TYPHOID FEVER BY SEX IN 1936.

Sex	*No. of Cases*	*No. of Deaths*	*Mortality %*
Male	348	20	5.7
Female	319	24	7.5
Total	667	44	6.6

TABLE M.2.—MORTALITY OF TYPHOID FEVER BY DISTRICT IN 1936.

District	*No. of Cases*	*No. of Deaths*	*Mortality %*
Nicosia	309	14	4.5
Larnaca	58	1	1.7
Limassol	93	11	11.7
Famagusta	108	3	2.7
Paphos	70	10	14.2
Kyrenia	29	5	17.2
Colony	667	44	6.6

TABLE M.3.—MORTALITY OF TYPHOID FEVER BY AGE GROUPS IN 1936.

Age Group	*No. of Cases*	*No. of Deaths*	*Mortality %*
under 5	261	8	3
5– 9	136	5	3.6
10–19	161	14	8.6
20–29	67	11	16.4
30–39	23	3	13
40–49	8	1	12.5
50 and over	11	2	18.2
Total	667	44	6.6

PARATYPHOID A AND B.

Only a few cases of Paratyphoid A and B have been notified during the last six years, with an annual average of 8.8 per year in absolute number as regard Paratyphoid A and 4.3 per year for Paratyphoid B.

DYSENTERY (TABLES G.—H).

Altogether 51 cases of Dysentery have been reported during the year under review giving an average of 1.3 pei 10,000 population. The average rate of morbidity observed during the last six years was 7.9 per 10,000 population. The average rate by district varies from 2.7 to 9.3 per 10,000 population, except in Limassol District where the average morbidity rate for the last six years seems to be higher, up to 17.6 per 10,000 population due to the epidemic of 1932 (49.7 per 10,000 population) and of 1933 (22.5 per 10,000 population).

The distribution by age epoch shows a preference to the group of under 5 giving 21.6% on the total of cases. I have every reason to believe that a considerable number of cases among this group were not real Dysentery (Flexner-Shiga-Strong) but cases of an ordinary Enteritis of the summer season although the maximum seasonal prevalence seems to be during November. Unfortunately many of the cases notified as Dysentery have not been bacteriologically confirmed.

The disease prevails in the Colony in an endemic form due to the existing bad sanitary conditions especially in rural communities, chiefly as regards wells, latrines, laundry drainage, housing, etc.

The more common type of bacteria found is of Flexner type and very few of the Shiga type have been observed and bacteriologically confirmed.

DIPHTHERIA.

Excepting the year 1932 the disease has shown itself throughout the Colony both in endemic and sporadic form. In 1932 it presented itself in an epidemic form with 206 cases (Table F).

Diphtheria cases reported during 1936 have been 31 in number, most of them being from Nicosia District without any interesting (chronical) distribution.

TABLE F.—DIPHTHERIA, 1931–1936.

1931	1932	1933	1934	1935	1936
17	206	64	31	44	31

TABLE G.—DYSENTERY DURING 1936.

By Age and District.

Age Group	0	5	10	15	20	25	35	45	55	65	75	*N.R.*	*Total*
Nicosia	1	1	—	2	3	2	4	2	2	—	—	1	18
Larnaca	—	1	—	—	—	1	1	1	1	2	—	—	7
Limassol	4	1	1	1	—	—	—	—	—	—	—	—	7
Famagusta	5	—	1	1	—	3	—	1	—	—	—	—	11
Paphos	1	—	—	—	2	—	—	1	2	—	—	—	6
Kyrenia	—	—	—	—	1	—	—	—	1	—	—	—	2
Colony	11	3	2	4	6	6	5	5	6	2	—	1	51
% on the total	21.6	5.9	3.9	7.8	11.7	11.7	9.9	9.9	11.7	3.9	—	2	100

TABLE H.—DYSENTERY, 1931–1936.

Rate per 10,000 *Population by District during the Years* 1931–1936.

Year	*Nicosia*	*Larnaca*	*Limassol*	*Famagusta*	*Paphos*	*Kyrenia*	*Colony*
1931	6.2	3.7	8.3	1.9	7	0.8	5.2
1932	8.4	8.6	49.7	23.5	9.8	3.5	18.2
1933	2.9	4.3	22.5	5.8	16.5	4.8	8.7
1934	4.1	10.1	19.1	18.2	5.4	5.2	10.4
1935	3.2	3.7	4.8	4.8	2.2	1.3	3.6
1936	1.5	1.7	1.2	1.4	1.3	0.8	1.3
Average rate	4.4	5.3	17.6	9.3	7.0	2.7	7.9

CEREBRO-SPINAL MENINGITIS.

During the last quarter of the year under review there occurred an epidemic of Cerebro-Spinal Meningitis affecting several parts of the Colony. The epidemic is still in existence at the time of submitting this report.

From September, 1936, up to 31st December, 1936, 38 cases have been notified, out of which 10 have proved fatal giving a mortality percentage of 26.3.

These cases occurred as follows :—

District	*September*	*October*	*November*	*December*	*Total*	*Deaths*	*Morbidity rate* %
Nicosia	1	2	1	16	20	5	25
Limassol	—	1	6	2	9	2	22.2
Paphos	1	—	—	8	9	3	33.3
Total	2	3	7	26	38	10	26.3

The disease assumed epidemic form during the first quarter of the following year and gave considerable trouble to the Department.

A separate and detailed report on this epidemic will be submitted in due course.

APPENDIX H.

REPORT ON VENEREAL DISEASES CLINICS.

By Dr. N. Ch. Michaelides.

Staff.—5 Medical Officers, 11 Male and 9 Female Attendants.

Number of Cases, etc.—There are five Venereal Diseases Clinics, one in each of the following Districts : Nicosia, Limassol, Famagusta, Larnaca and Paphos. The actual number of treatments given to new and old cases in all clinics as daily attendances amounts to 217,381 as follows :—

Nicosia	*Larnaca*	*Limassol*	*Famagusta*	*Paphos*	*Prisons*
88,007	36,475	37,703	40,688	14,845	693

The number of new cases seen in all centres amounted to 2,720 comprising 1,867 male and 853 female.

These were distributed as follows :—

	Nicosia	*Larnaca*	*Limassol*	*Famagusta*	*Paphos*	*Prisons*
Male	665	248	248	157	191	358
Female	412	177	97	83	82	2
Total	1,077	425	345	240	273	360

As well as the above new cases 2,040 old cases continued their treatment through the year 1936 as follows :—

	Male	*Female*	*Total*
Gonorrhœa	358	500	858
Syphilis	668	514	1,182
Total	1,026	1,014	2,040

Thus it becomes evident that 1,182 syphilitic patients have shown willingness to continue their treatment which may be attributed to the propaganda carried out by the clinics.

The total syphilitics under treatment has amounted to 1,934 (1,182 old cases and 752 new cases) and the number of injections for syphilis to 17,502.

Dark Field examinations for Spyrochæta Pallidum were 136.

4,389 Blood Wassermann examinations were carried out and of this number, 1,316 were returned positive and 100 returned doubtful which cases however after a provocative injection became positive.

Cerebro-spinal fluid examination were 87, all done in the Venereal Diseases Clinic, Nicosia.

Male.

The distribution of the 1,867 new cases of male patients is shown in the following table :—

	Nicosia	*Larnaca*	*Limassol*	*Famagusta*	*Paphos*	*Prisons*
Syphilis	158	21	50	22	23	57
Gonorrhœa	236	107	72	66	57	36
Gonorrhœa & Syphilis	27	31	8	23	17	32
Other V.D.	95	19	36	5	18	2
Non-V.D.	138	48	81	26	39	231
Exam. not completed	11	22	1	15	37	—
Total of new cases	665	248	248	157	191	358

Gonorrhœa Cases.—Out of 712 new male patients suffering from gonorrhœa, and syphilis, 468 came to the Clinic with acute gonorrhœa and 240 with chronic gonorrhœa, 97 were suffering from epididymitis or orchitis, 40 from gonorrhœal cystitis, 31 from gonorrhœal rheumatism, 60 from strictures and 4 from rectal gonorrhœa.

Other V. D. Cases.—175 new patients were suffering from other venereal diseases (condylomata, genital herpes, balanitis, lymphogranuloma inguinalis), 258 were suffering from soft chancre.

Syphilis Cases.—Out of 469 male new syphilitic patients, 331 were suffering from syphilis only and 138 from both gonorrhœa and syphilis.

The classification of the 469 new male syphilitic patients is shown in the following table :—

Early acquired Syphilis : 166 :—	
(*a*) Syphiloma (the very earliest symptom of Syphilis, Dark Field positive which appears before chancre)	1
(*b*) Primary Syphilis Dark Field in seronegative stage	36
(*c*) Primary Syphilis Dark Field in seropositive stage	20
(*d*) Secondary Syphilis (with rash)	107
(*e*) Early neurosyphilis, asymptomatic (only serologically diagnosed)	2
Late acquired Syphilis : 254 :—	
(*a*) Syphilitic patients with Blood Wassermann positive only, including latent and unknown Syphilis	119
(*b*) Tertiary Mucocutaneous	11
(*c*) Visceral Syphilis	23
(*d*) Cardiovascular Syphilis	47
(*e*) *Neurosyphilis :* 54 :	
(i) Tabes Dorsalis	9
(ii) G. P. I.	5
(iii) Other syphilitic affections of the nervous system	40
Congenital Syphilis : 49 :—	
(*a*) Early congenital Syphilis	16
(*b*) Late congenital Syphilis	18
(*c*) Parasyphilitic cases (2nd or 3rd generation of syphilis)	5

Blood Wassermann Fastness : 18.

CURES.

Number of male patients cured was 1,327 as follows :—

(*a*) Gonorrhœa	537
(*b*) Syphilis	91
(*c*) Other V.D.	699

Number of patients admitted as in-patients during the year amounted to 97.

FEMALE.

Out of 853 new female patients, 229 were prostitutes, 357 were infected maritally.

The distribution of the 853 new cases of female patients is shown in the following table :—

	Nicosia	*Larnaca*	*Limassol*	*Famagusta*	*Paphos*	*Prisons*
Syphilis	120	13	17	14	18	—
Gonorrhœa	125	105	28	29	19	2
Gonorrhœa & Syphilis	38	13	16	22	12	—
Other V.D.	36	5	1	—	1	—
Non-V.D.	81	30	32	16	22	—
Exam. not completed	12	11	3	2	10	—
Total No. of new cases	412	177	97	83	82	2

GONORRHŒA CASES.

Out of 409 new female patients suffering from gonorrhœa, 308 were suffering from gonorrhœa only and 101 from both gonorrhœa and syphilis, 138 came to the clinic with acute gonorrhœa, 269 with chronic gonorrhœa, 45 were suffering from salpingitis, 26 from vulvo-vaginitis, 11 from rectal gonorrhœa, 22 from gonorrhœa cystitis and 30 from gonorrhœal rheumatism.

OTHER V.D. CASES.

43 new female patients were suffering from other venereal diseases (condylomata, genital herpes, lymphogranuloma inguinalis).

168 were suffering from soft chancre.

SYPHILIS CASES.

Out of 283 new female syphilitic patients, 182 were suffering from syphilis only and 101 from both gonorrhœa and syphilis.

The distribution of the 283 new cases of female syphilitic patients is shown in the following table :—

Early acquired Syphilis : 89 :—	
(*a*) Syphiloma (the very earliest symptom of Syphilis, which appears before the chancre Dark Field positive)	—
(*b*) Primary Syphilis Dark Field in seronegative stage	4
(*c*) Primary Syphilis Dark Field in seropositive stage	8
(*d*) Secondary Syphilis (with rash)	74
(*e*) Early neurosyphilis, asymptomatic (only serologically diagnosed)	3

Late acquired Syphilis : 146 :—

(*a*) Syphilitic patients with Blood Wassermann positive only including the latent and unknown syphilis	62
(*b*) Tertiary mucocutaneous	13
(*c*) Visceral syphilis	25
(*d*) Cardiovascular syphilis	19
(*e*) *Neurosyphilis :* 27 :	
(i) Tabes Dorsalis	—
(ii) G. P. I.	2
(iii) Other syphilitic affections of the nervous system	25

Congenital Syphilis : 48 :—

(*a*) Pre-natal (pregnant women)	21
(*b*) Early congenital Syphilis	10
(*c*) Late congenital Syphilis	15
(*d*) Parasyphilitic cases (2nd or 3rd generation of Syphilis)	2

Blood Wassermann Fastness : 12.

CURES.

Number of female patients cured was : 712 :—

(*a*) Gonorrhœa	268
(*b*) Syphilis	49
(*c*) Other V.D.	395

Number of patients admitted as in-patients was 2.

PROPHYLACTIC CENTRES.

11 prophylactic centres functioned during the year, 6 as private and 5 as municipal, one in each district town. The Limassol municipal one deserves special mention as it is the ideal type of such a centre and one for imitation by other towns.

The public appears to have attached great importance to the efficacy of the treatment given by these centres as is obvious from the following figures :—

Nicosia	*Larnaca*	*Limassol*	*Famagusta*	*Paphos*
25,929	7,528	23,660	4,814	3,902

INVESTIGATION.

During the year, Blood Wassermann examinations were carried out on all inmates of the public institutions with a view of ascertaining the extent of syphilis. The results were as follows :—

Central Prison.

Out of 358 males and 6 females examined, 89 males gave a positive result and 14 were doubtful, 19 others who were previously under treatment gave a negative Blood Wassermann result. Thus the percentage of syphilitics was 29%.

The figure 103 (89 positive and 19 under treatment) is doubtless a great one and shows the extent of syphilis and possibly indicates the role played by this disease in connection with the crime.

All these patients are now undergoing a course of treatment.

Leper Farm.

Out of 101 lepers examined, 40 gave a positive Blood Wassermann result, *i.e.* 40% syphilis.

No definite conclusion can be drawn from these results as it is known that leprosy gives a positive Blood Wassermann result and in some cases the patients have, however, been submitted to anti-syphilitic treatment.

Sanatorium.

Out of 45 patients suffering from Pulmonary Tuberculosis, who were submitted to a Blood Wassermann examination, 6 gave a positive result, *i.e.* 13% syphilis.

Blind School.

Out of 16 blind children 4 gave a positive Blood Wassermann result, *i.e.* 25% syphilis.

They are undergoing a course of treatment.

They were cases of congenital syphilis and was confirmed by the examination of the blood of the parents who were all found suffering from syphilis.

There is no doubt that the cause of their blindness is the disease.

PROPAGANDA.

The campaign against Venereal Diseases was continued throughout the year. It was made by means of lectures and films in the towns and villages and by the distribution of pamphlets, etc.

APPENDIX I.

REPORT ON DENTAL CLINICS.

By John G. Marcellos, *Honorary Dentist in charge of Dental Clinics.*

The total number of daily attendances during the year was 32,719 which is a decrease of 4% on that of last year. While the amount of work, *i.e.* extractions, fillings and other treatments increased by 44%. Details of the attendances are shown in Table 1.

Table 1.

	Nicosia	*Larnaca*	*Paphos*	*Kyrenia*	*Famagusta*	*Limassol*
Consultations	5,862	5,310	2,403	885	907	2,902
Pyorrhœa	564	54	55	61	84	15
Disease of mouth	444	107	92	42	41	9
Operations	12	2	—	—	—	—
Extractions	2,919	2,097	1,058	724	463	664
Fillings	1,647	210	155	194	40	96
Temporary fillings	681	324	303	72	147	20
Vulcanite plates	19	2	—	2	—	—
Scalings	580	210	184	38	8	11
Total	12,728	8,316	4,250	2,018	1,690	3,717

The introduction of the new system of Mukhtars' certificates has increased by 15% the number of new cases seen by me in the Nicosia and Kyrenia Districts. This is also due to free treatment of school children on the production of the written consent of the parents. In previous years a Mukhtar's certificate was required for such treatment.

The school dental work has been increased during the current year and details are shown in Table 2.

Table 2.

District	*No. of Schools*	*Pupils Examined*	*Extractions*	*Fillings Other Treatment*
Nicosia and Kyrenia	101	4,415	2,113	21
Larnaca	150	4,898	1,271	129
Paphos	56	1,779	615	31
Limassol	23	2,312	—	—
Famagusta	8	587	47	—
Total	338	13,991	4,046	181

In 95 schools the system of Medical Record Cards has been adopted with a view to ascertaining the hygienic condition of the school children. 6,998 school children were examined accordingly, and 1,858 were found to be free from mouth disease, the percentage, therefore, of those suffering is 73%.

Owing to the limited travelling allowances given to the Hon. Dentists of Paphos, Limassol and Famagusta, their activities were again confined to town dispensaries and to an area extending 9 miles around their headquarters.

With a slight increase in their travelling allowances better work could be done in the schools of their respective districts.

APPENDIX J.

REPORT ON THE ATHALASSA SANATORIUM FOR THE YEAR 1936.

By Takis K. Evangelides, *Honorary Physician.*

Buildings.—Thanks to the hut erected by the Cyprus Anti-Tuberculosis League the number of beds available has been increased since May, from 40 (*i.e.* males 26, females 14) to 55 (*i.e.* males 41, females 14). An additional increase in the number of beds is expected early next year by the completion of the " Georghiades Pavilion " with an accommodation for 8 beds (all female).

Staff.—The staff consisted of :—

Honorary Physician.
Matron.
1 Staff Nurse.
3 Nurses (one appointed on 1st February).
3 Orderlies (one paid by the Anti-Tuberculosis League).
1 Cook.
2 Kitchen-boys.
1 Gardener.
1 Laundry woman.
1 Casual Labourer.

From 1st September to 31st October, the Honorary Physician was on sick leave and his duties were carried out by Dr. Loukia M. Georghiadou.

Dr. Stratman-Thomas, of the Malaria Bureau of the Rockefeller Foundation, accompanied by Dr. C. S. Markides, the Nicosia Health Officer, visited the Sanatorium and took blood slides from all patients. In no case was malaria parasites discovered.

Dr. N. Ch. Michaelides, the Government Venereal Disease Specialist, arranged for Wassermann examination of 45 patients ; 6 showed positive results (*i.e.* 13.3 %).

The Honorary Dentist, Dr. J. Marcellos, made regular visits.

A visit was also paid by Dr. C. Pantazis, the Honorary Laryngologist at the Nicosia Hospital.

Dr. Noel D. Bardswell, M.V.O., F.R.C.P., Medical Commissioner of the National Association for the Prevention of Tuberculosis, and Nurse Commissioner Jays visited the Sanatorium twice in October. They examined all the patients, making minute inquiries about the work.

The following table shows the number of patients treated :—

	Males	*Females*	*Total*
Remaining end 1935	26	13	39
Admissions	53	7	60
Discharged (quiescent)	9	1	10
Left against advice	10	2	12
Dismissed for bad behaviour	2	—	2
Deaths	22	2	24
Remaining end 1936	36	15	51

Patients wishing to be admitted to the Sanatorium had their names written on the Waiting List and were dealt with in rotation except in cases of urgency. Many patients from the Nicosia Chest Clinic were admitted.

The majority of patients had Mukhtars' certificates of pauperism and contributed accordingly towards their expenses.

All patients on discharge were fit for work and had negative sputa for about two months. It was hoped that this policy would enhance the reputation of the Sanatorium for producing cures and so diminish the fear and consequent boycotting of patients discharged from the Sanatorium. Patients who took their own discharge did so in the hope of obtaining more efficacious treatment elsewhere and were often hopeless cases. Others left because they were unable to tolerate the heat in the hut during the summer.

APPENDIX K.

ANNUAL REPORT OF THE PUBLIC HEALTH WORK AND ACTIVITIES OF THE MUNICIPAL CORPORATION OF LIMASSOL FOR THE YEAR 1936.

1. STREETS.

(*a*) New streets have not been constructed by the method of macadamization.

(*b*) Repairs to existing macadamized streets have been effected to an approximate extent of 3,050 square metres.

(*c*) Asphalting of existing streets has been carried out to an approximate extent of 18,600 square metres.

(*d*) Repairs to existing asphalted streets have been effected to an approximate extent of 9,950 square metres.

2. SANITATION.

Strict measures have been taken during the year 1936 for the protection of the Public Health, which measures may be summarized as follows :—

(*a*) *Latrines.*—22 houses owned by poor persons were provided with pit latrines and waste water sumps at the expense of the Municipality.

Through the suggestion and encouragement by the Municipality over 900 premises throughout the town were provided with pit latrines and waste water sumps by the proprietors or occupiers.

(*b*) *Disinfection.*—9 disinfections of houses and their contents containing persons suffering from contagious or infectious diseases were carried out by the Municipality. Five disinfections of second-hand articles intended for sale were carried out by the Municipality.

(*c*) *Anti-Mosquito Work.*—6 Sanitary labourers were regularly employed by the Municipality for carrying out inspections in connection with anti-mosquito campaign. 172,302 house-to-house inspections were carried out by the Municipal and Sanitary Staff in order to ascertain whether any mosquito breeding or other nuisances existed. 1,889 notices relating to anti-mosquito work and Public Health were issued by the Municipal Corporation during the year. 113 disused wells were covered or filled in. 594 disused wells were oiled. 15 water tanks and wells were stocked with fish. Drains of a total length of 2,500 feet were dealt with and 3,660 kilos of solar oil were used for the anti-mosquito work.

(*d*) *Venereal Prophylactic Station.*—23,660 people attended the Limassol Municipal Prophylactic Station during the year 1936 for prophylactic treatment.

(*e*) *Inspection of Foodstuffs.*—All Municipal Markets and Slaughter-houses were regularly inspected by the Municipal Medical Officer of Health.

3,531 premises, in which foodstuffs were prepared, kept or exposed for sale, were inspected by the Municipal Medical Officer of Health and the Municipal Sanitary Inspector. All foodstuffs found in the above premises, which in the opinion of the Medical Officer were unfit for human consumption, were seized and destroyed.

The following table shows the quantity of foodstuffs seized and destroyed during the year 1936 :—

Fresh fish	258	okes
Fresh meat and pork	6,908	,,
Carcasses of slaughtered animals for human consumption	9	carcasses
Carcasses of 2 dead swine	240	okes
Tinned fish and tinned fruits	854	tins
Eels	129	okes
Haddocks	1,360	,,
Bacon and sausages	76	,,
Macaroni	77	,,
Olives	60	,,
Eggs	2,500	,,
Chocolates and Cakes (1 ℔. each cake)	312	pieces
Bread	57	okes
Fresh fruits	528	,,
Fresh fruits	5,768	pieces
Green vegetables	37,838	bundles
Green vegetables	645	okes
Game	28	pieces

In addition 2,092 house utensils were seized and destroyed during 1936.

(*f*) *Scavenging and Refuse Disposal.*—All the streets and public places were swept and cleaned every day between midnight and 5 a.m. In addition, all the central streets of the town were regularly swept and cleaned during day-time; the town refuse was regularly removed from the streets, public places and houses by motor lorries provided with proper covers.

The refuse was sold to gardeners whose land was outside the town. Measures were taken so that the refuse was spread daily and ploughed in after three days.

(*g*) *Control of Infectious Diseases.*—The hawking of vegetable and fruits liable to infection was absolutely and strictly prohibited. The sale of second-hand articles was strictly prohibited, unless they were disinfected.

No person employed in bakeries, slaughter-houses or in the sale of fresh meat, pork or perishable goods, was allowed to carry on his work, unless he obtained a certificate from the Municipal Medical Officer of Health that his state of health would not infect the foodstuffs made or sold by him.

360 certificates of this nature were issued during the year 1936.

All barber-shops, coffee-houses, hotels, khans, restaurants, bakeries, baths and other premises in which foodstuffs were made or exposed for sale were inspected by the Municipal Medical Officer of Health and the Municipal Sanitary Inspector in order to ascertain whether all the articles used therein were kept in a clean and good sanitary condition.

All the owners or occupiers of coffee-shops were required to provide such premises with drinking water from the town water supply, waste water sumps, latrines and spitoons.

Black disinfectant and lime were generally supplied by the Corporation free to poor families.

(*h*) *Control of Trade and Industries.*—All factories were inspected by the Medical and Sanitary Staff.

(*i*) *Prosecutions.*—250 prosecutions were made against the owners or occupiers of premises which were found in a dirty condition or failed to comply with the laws or bye-laws of the Corporation.

(*j*) *Examination of the Drinking Water.*—Bacteriological examinations of the drinking water of the town of Limassol were, on the application of the Municipal Corporation, carried out by the Government Bacteriologist. The samples were sent by the Government Sanitary Staff.

(*k*) *Dogs.*—172 ownerless dogs have been destroyed during the year. 258 dog licences have been issued.

3. WATER SUPPLY.

Strict measures have been taken during the year 1936 for the control of the water supply to the town.

Water mains have been laid along important municipal streets for the conveyance of drinking water to town quarters situated far from the centre of the town. By this arrangement, many townsmen have been enabled to instal drinking water in their houses and shops.

4. AMOUNT OF REVENUE AND EXPENDITURE.

Revenue of 1936	£19,102. 7*s*. 2*p*.
Expenditure of 1936	£18,247. 10*s*. 2*p*.

5. GENERAL REPORT.

(*a*) Construction of a protection wall near Messayitonia village for the protection of the town against floods.

(*b*) Construction of part of a fencing wall with railings for the Public Gardens, extending the existing fencing by approximately 65 metres.

(*c*) Construction and erection by the Municipality of a proper Venereal Prophylactic Station at Stassinou Street.

(*d*) Construction and erection of public latrines and urinals at Salaminos Street.

(*e*) Covering with cement concrete: (*a*) the surface of the new Quay wall constructed during the year 1935, and (*b*) the surface of the protection wall constructed during 1933 near the English Club.

(*f*) Construction of a protection wall at the sea front at " Psaratica " locality.

(*g*) Holding of an agricultural, industrial, etc., Exhibition in the town of Limassol.

(*h*) Payment of compensation to the proprietors of several private premises in the town in respect of land ceded to the Corporation for the widening and straightening of municipal streets.

APPENDIX L.

TABLE I.

Dr. E. A. Neff, *Director of Medical Services.*

Dr. C. H. Cuff, *Specialist* (*Surgeon*).

Dr. G. M. Gibbon, *District Medical Officer*, Nicosia.

Dr. W. J. E. Phillips, *District Medical Officer*, Famagusta.

Dr. D. C. Ogilvie, *District Medical Officer*, Limassol.

Dr. C. E. Bevan, *District Medical Officer*, Larnaca.

Dr. R. A. Porter, *District Medical Officer*, Paphos.

Dr. H. B. A. Macfie, *District Medical Officer* stationed at Nicosia.

Dr. H. Symeonides, *Medical Officer*, 1st Grade, Nicosia.

Dr. G. M. Pietroni, *Medical Officer*, 1st Grade, Kyrenia.

Dr. Th. Chr. Astreos, *Medical Officer*, 1st Grade, Limassol.

Dr. J. S. Makrides, *Medical Officer*, 2nd Grade, Limassol.

Dr. S. C. Constantinides, *Medical Officer*, 2nd Grade, Paphos.

Dr. J. Christodoulides, *Medical Officer*, 2nd Grade, Polis.

Dr. A. P. Economides, *Medical Officer*, 2nd Grade, Lefka.

Dr. C. M. Volos, *Medical Officer*, 2nd Grade, Klirou.

Dr. C. Rodosthenis, *Medical Officer*, 2nd Grade, Larnaca.

Dr. M. Liassides, *Medical Officer*, 2nd Grade, Kophinou.

Dr. P. Koumas, *Medical Officer*, 2nd Grade, Famagusta.

Dr. M. J. Fterakis, *Medical Officer*, 2nd Grade, Morphou.

Dr. S. S. Pastides, *Medical Officer*, 2nd Grade, Lefkoniko.

Dr. C. P. Kronides, *Medical Officer*, 2nd Grade, Perapedhi.

Dr. H. A. Hikmet, *Medical Officer*, 2nd Grade, Nicosia.

Dr. H. Tahsin Salih, *Travelling Oculist.*

Dr. Mehmed Ali, *Travelling Oculist.*

Dr. Chr. Tornaritis, *Travelling Oculist.*

Miss F. M. E. Pepper, *Matron*, Nicosia General Hospital.

Miss A. Barclay, *Matron*, Limassol Government Hospital.

Miss C. A. Wyeth, *Matron*, Sanatorium.

Mrs. H. Hunter, *Matron*, Leper Farm.

Miss L. Seymour, *Nursing Sister*, Limassol Government Hospital.

Miss J. Rudge, *Nursing Sister*, Limassol Government Hospital.

Miss M. H. Sizer, *Nursing Sister*, Nicosia General Hospital.

Miss M. Nicholls, *Nursing Sister*, Nicosia General Hospital.

Miss T. M. Price, *Nursing Sister*, Nicosia General Hospital.

Miss M. M. Milnes, *Nursing Sister*, Nicosia General Hospital.

Miss A. Hodgson, *Nursing Sister*, Nicosia General Hospital.

Mr. L. Haralambides, *Acting Government Chemist.*

Dr. J. C. Tull, *Government Pathologist.*

Dr. C. S. Markides, *Health Officer.*

Dr. M. Theodoulou, *Health Officer.*

Dr. P. E. Demetriades, *Health Officer.*

Mr. M. Aziz, *Chief Sanitary Inspector.*

Dr. S. Lysandrides, *Medical Superintendent*, Mental Hospital.

Dr. Chr. Kalavros, *Honorary Oculist*, Nicosia Hospital.

Dr. Chr. Tsiros, *Honorary Oculist*, Larnaca Hospital.

Dr. Chr. Makrides, *Honorary Oculist*, Limassol Hospital.

Dr. N. Michaelides, *Medical Officer in charge*, Venereal Clinics.

Dr. Eyioub Nedjmuddin, *School Medical Officer*, Paphos.

Mr. J. G. Marcellos, *Honorary Dentist*, Nicosia and Kyrenia Hospitals.

Mr. V. Diamantides, *Honorary Dentist*, Larnaca Hospital.

Mr. Y. P. Michaelides, *Honorary Dentist*, Limassol Hospital.

Mr. N. Savvides, *Honorary Dentist*, Famagusta Hospital.

Miss Stavroulla M. Georghiadou, *Honorary Dentist*, Paphos Hospital.

Dr. M. Coureas, *Hon. Consulting Physician*, Nicosia General Hospital.

Dr. A. Gavrielides, *Hon. Consulting Surgeon*, Limassol Hospital.

Dr. M. Raouf, *Hon. Physician*, Nicosia General Hospital.

Dr. E. Dikeos, *Honorary Radiologist*, Larnaca Hospital.

Dr. T. Evangelides, *Honorary Physician*, Sanatorium.

Dr. P. Haji Eftychiou, *District Surgeon*, Lysi.

Dr. N. Argyrides, *District Surgeon*, Pedhoulas.

Dr. G. M. Avraamides, *District Surgeon*, Agros.

Mr. J. K. Tsangarinos, *Clerk*, 1st Grade.

Mr. H. Shevket, *Clerk*, 2nd Grade.

APPENDIX M.

TABLE II.

FINANCIAL.

MEDICAL DEPARTMENT.

EXPENDITURE, 1936.

	£	s.	p.
Personal Emoluments	22,835	19	5
Other Charges :—			
Wages :—			
Central Hospital, Nicosia	348	16	3
Sanatorium, Nicosia	114	9	1
Limassol Hospital	162	4	0
Mental Hospital	135	13	3
Leper Farm	371	14	7
Government Laboratories	120	0	0
Food, Clothing and Miscellaneous :—			
Central Hospital, Nicosia	2,037	7	0
Sanatorium, Nicosia	1,234	6	3
Limassol Hospital	838	8	5
Mental Hospital	1,996	0	1
Leper Farm	2,356	16	0
Drugs and Surgical Supplies	4,894	1	0
Surgical Appliances	16	10	2
Care of Healthy Children of Lepers	57	0	0
Extra Assistance :—			
Medical	1,997	11	3
Nursing	624	7	0
Prevention of Diseases	4,075	6	2
Disinfection	6	15	1
Rat Destruction	98	11	0
Midwifery	156	0	0
Venereal Clinics	1,326	3	3
Social Work	55	14	5
Chemical and Equipment of Laboratories	141	10	8
The Food and Drugs Law, 1926	20	8	6
Remuneration to Examiners in Pharmacy	15	0	0
Remuneration to Trachoma Service	128	0	6
Contributions :—			
Local State-aided Hospitals	2,376	8	3
Infant Welfare Centres	357	10	0
Other	275	0	0
Hospital Equipment	246	19	6
Extra Clerical Assistance	23	7	0
Books and Periodicals	29	19	0
Uniforms	186	3	3
Travelling	2,875	15	2
Rent	128	0	0
Lighting and Heating	435	1	6
Training of Medical Department Officials	109	0	0
Incidentals	95	0	8
Ambulance	252	0	3
Total	£30,719	1	0
Grand Total	£53,555	0	5

REVENUE.

The total revenue of the Medical and Sanitary Department, as shown below, amounted to £5,308. 9*s*. 7*p*.

	£	s.	p.
1. Sale of Medicines	726	9	8
2. Hospital Receipts	1,917	7	5
3. Other	1,515	19	0
4. Analytical and Bacteriological Fees	101	3	3
5. Registration of Diplomas	152	16	0
6. Quarantine Dues and Health Certificates	894	14	0
Total	£5,308	9	7

APPENDIX N.

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1936.

Diseases	In-Patients					Out-Patients	
	Remaining in Hospital at end of 1935	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1936	Male	Female
		Admissions	Deaths				
I. EPIDEMIC, ENDEMIC, AND INFECTIOUS DISEASES.							
1. Enteric Group :—							
(*a*) Typhoid Fever	6	176	25	182	11	89	98
(*b*) Paratyphoid A.	—	—	—	—	—	8	1
(*c*) Paratyphoid B.	—	—	—	—	—	1	—
(*d*) Type not defined	—	—	—	—	—	1	1
2. Typhus	—	—	—	—	—	—	—
3. Relapsing Fever	—	—	—	—	—	—	—
4. Undulant Fever	—	—	—	—	—	—	—
5. Malaria :—							
(*a*) Tertian	12	400	4	412	6	4,919	4,473
(*b*) Quartan	—	1	—	1	—	175	256
(*c*) Aestivo-autumnal	—	87	1	87	5	393	382
(*d*) Cachexia	—	36	—	36	—	954	676
(*e*) Blackwater	—	—	—	—	—	8	7
6. Small-pox :—							
Alastrim	—	—	—	—	—	—	—
7. Measles	—	—	—	—	—	1	—
8. Scarlet Fever	—	—	—	—	—	1	1
9. Whooping Cough	—	1	—	1	—	202	172
10. Diphtheria	—	3	1	3	—	7	3
11. Influenza	—	36	1	36	—	1,503	887
12. Miliary Fever	—	—	—	—	—	—	—
13. Mumps	—	7	—	7	—	15	11
14. Cholera	—	—	—	—	—	—	—
15. Epidemic diarrhœa	—	—	—	—	—	—	—
16. Dysentery :—							
(*a*) Amœbic	—	—	—	—	—	5	2
(*b*) Bacillary	2	8	—	10	—	15	8
(*c*) Undefined or due to other causes	—	—	—	—	—	—	—
17 Plague :—							
(*a*) Bubonic	—	—	—	—	—	—	—
(*b*) Pneumonic	—	—	—	—	—	—	—
(*c*) Septicæmic	—	—	—	—	—	—	—
(*d*) Undefined	—	—	—	—	—	—	—
18. Yellow Fever	—	—	—	—	—	—	—
19. Spirochætosis	—	—	—	—	—	—	—
Ictero-hœmorrhagica	—	—	—	—	—	—	—
20. Leprosy	—	—	—	—	—	2	1
21. Erysipelas	—	16	—	16	—	26	36
22. Acute Poliomyelitis	1	1	—	2	—	7	4
23. Encephalitis Lethargica	—	1	—	1	—	9	3
24. Epidemic Cerebro-spinal Fever	—	10	3	10	5	25	8
25. Other Epidemic Diseases :—							
(*a*) Rubeola (German Measles)	—	—	—	—	—	—	—
(*b*) Varicella (Chicken-Pox)	—	—	—	—	—	100	71
(*c*) Kala-azar	—	1	—	1	—	—	—
(*d*) Phlebotomus Fever	—	1	—	1	—	—	2
(*e*) Dengue	—	—	—	—	—	—	—
(*f*) Epidemic Dropsy	—	—	—	—	—	—	—
(*g*) Yaws	—	—	—	—	—	—	—
(*h*) Trypanosomiasis	—	—	—	—	—	—	—
26. Glanders	—	—	—	—	—	12	12
27. Anthrax	—	10	—	10	—	10	3
28. Rabies	—	—	—	—	—	—	—
29. Tetanus	—	4	—	4	—	2	—
30. Mycosis	—	—	—	—	—	2	1
31. Tuberculosis, Pulmonary and Laryngeal	41	77	29	118	51	130	98
Carried forward	62	876	64	938	78	8,614	7,217

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1936—*contd.*

Diseases	In-Patients					Out-Patients	
	Remaining in Hospital at end of 1935	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1936	Male	Female
		Admissions	Deaths				
Brought forward . .	62	876	64	938	78	8,614	7,217
I. Epidemic, Endemic, and Infectious Diseases—*continued.*							
32. Tuberculosis of the Meninges or Central Nervous System	—	3	2	3	1	1	1
33. Tuberculosis of the Intestines or Peritoneum	—	17	3	17	—	10	21
34. Tuberculosis of the Vertebral Column	2	2	—	4	—	3	4
35. Tuberculosis of Bones and Joints	—	16	—	16	1	16	8
36. Tuberculosis of other organs :—							
(*a*) Skin or Subcutaneous Tissue (Lupus)	1	10	—	11	2	6	11
(*b*) Bones	—	5	—	5	—	4	3
(*c*) Lymphatic System	—	7	—	7	1	20	19
(*d*) Genito-urinary	—	2	—	2	—	3	—
(*e*) Other organs	—	2	—	2	—	6	4
37. Tuberculosis disseminated :—							
(*a*) Acute	—	—	—	—	—	—	—
(*b*) Chronic	—	—	—	—	—	—	—
38. Syphilis :—							
(*a*) Early	—	11	—	11	—	43	19
(*b*) Late	1	1	—	2	—	13	4
(*c*) Tertiary	—	1	—	1	—	2	—
(*d*) Hereditary . .	—	1	—	1	—	1	2
(*e*) Period not indicated	—	—	—	—	—	6	—
39. Soft Chancre	—	3	—	3	—	23	2
40. A.—Gonorrhœa & its complications	—	25	—	25	—	117	23
B.—Gonorrhœal Ophthalmia	—	—	—	—	—	2	2
C.—Gonorrhœal Arthritis	1	—	—	1	—	20	13
D.—Granuloma Venereum	—	—	—	—	—	3	—
41. Septicæmia . .	1	18	12	19	—	59	34
42. Other Infectious Diseases :— Trypanosomiasis	—	—	—	—	—	—	—
II. General Diseases not mentioned above.							
43. Cancer or other malignant Tumours of the Buccal Cavity . .	2	37	1	39	2	21	16
44. Cancer or other malignant Tumours of the Stomach or Liver	1	12	2	13	—	2	4
45. Cancer or other malignant Tumours of the Peritoneum Intestines, Rectum	1	7	1	8	—	11	6
46. Cancer or other malignant Tumours of the Female Genital Organs . .	3	37	2	40	1	—	55
47. Cancer or other malignant Tumours of the Breast . .	—	19	—	19	1	—	24
48. Cancer or other malignant Tumours of the Skin	4	39	2	43	2	33	47
49. Cancer or other malignant Tumours of Organs not specified	1	32	1	33	2	15	18
50. Tumours non-malignant . .	—	62	2	62	2	106	111
51. Acute Rheumatism	1	95	—	96	—	670	699
52. Chronic Rheumatism	4	16	1	20	1	690	1,103
53. Scurvy (including Barlow's Disease)	—	—	—	—	—	—	—
54. Pellagra	—	—	—	—	—	—	—
55. Beri-Beri	—	—	—	—	—	—	—
56. Rickets	—	—	—	—	—	8	9
57. Diabetes (not including Insipidus)	—	6	1	6	1	27	11
58. Anæmia :—							
(*a*) Pernicious . .	3	19	2	22	2	178	125
(*b*) Other Anæmias & Chlorosis	—	22	—	22	2	1,078	1,572
Carried forward . .	88	1,393	96	1,481	99	11,811	11,183

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1936—*contd.*

Diseases	In-Patients					Out-Patients	
	Remaining in Hospital at end of 1935	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1936	Male	Female
		Admissions	Deaths				
Brought forward	88	1,393	96	1,481	99	11,811	11,183
II. General Diseases not mentioned above—*continued.*							
59. Diseases of the Pituitary Body . .	—	—	—	—	—	—	—
60. Diseases of the Thyroid Gland :—							
(*a*) Exophthalmic Goitre . .	—	—	—	—	—	5	5
(*b*) Other diseases of the Thyroid Gland, Myxœdema . .	—	—	—	—	—	3	6
61. Diseases of the Para-Thyroid Glands	—	—	—	—	—	9	10
62. Diseases of the Thymus	—	—	—	—	—	—	—
63. Diseases of the Supra-Renal Glands	—	—	—	—	—	—	—
64. Diseases of the Spleen	—	15	1	15	1	188	125
65. Leukœmia :—							
(*a*) Leukœmia	—	—	—	—	—	—	1
(*b*) Hodgkin's Disease	—	—	—	—	—	—	—
66. Alcoholism	—	1	—	1	—	10	—
67. Chronic poisoning by mineral substances (lead, mercury, etc.) . .	—	—	—	—	—	—	—
68. Chronic poisoning by organic substances (Morphia, Cocaine, etc.)	—	—	—	—	—	—	—
69. Other General Diseases :—							
Auto-intoxication	—	1	1	1	—	2	—
Purpura Hæmorrhagica . .	—	3	1	3	—	1	2
Hæmophilia	—	—	—	—	—	9	4
Diabetes Insipidus	—	3	—	3	—	8	10
III. Affections of the Nervous System and Organs of the Senses.							
70. Encephalitis (not including Encephalitis Lethargica)	—	2	1	2	—	1	1
71. Meningitis (not including Tuberculous Meningitis or Cerebrospinal Meningitis)	—	2	1	2	—	3	1
72. Locomotor Ataxia	—	1	—	1	—	8	1
73. Other affections of the Spinal Cord	—	—	—	—	—	5	—
74. Apoplexy :—							
(*a*) Hæmorrhage	—	4	4	4	—	17	10
(*b*) Embolism	—	—	—	—	—	—	—
(*c*) Thrombosis	—	1	—	1	—	—	1
75. Paralysis :—							
(*a*) Hemiplegia	1	15	3	16	—	69	53
(*b*) Other Paralyses	—	7	2	7	—	16	12
76. General Paralysis of the Insane . .	—	1	—	1	—	7	2
77. Other forms of Mental Alienation	—	2	—	2	—	10	4
78. Epilepsy	—	1	—	1	—	179	76
79. Eclampsia, Convulsions (non-puerperal) 5 years or over . .	—	—	—	—	—	—	—
80. Infantile Convulsions	—	—	—	—	—	4	3
81. Chorea	—	—	—	—	—	6	6
82. A.—Hysteria	—	13	—	13	—	54	369
B.—Neuritis	—	49	—	49	1	1,376	1,347
C.—Neurasthenia	—	12	—	12	1	369	599
83. Cerebral Softening	—	—	—	—	—	—	—
84. Other affections of the Nervous System, such as Paralysis Agitans	—	2	—	2	—	28	55
85. Affections of the Organs of Vision :							
(*a*) Diseases of the eye . .	—	52	—	52	1	475	500
(*b*) Conjuctivitis	—	1	—	1	—	1,846	1,964
(*c*) Trachoma	1	43	—	44	1	4,609	4,005
(*d*) Tumours of the Eye . .	—	15	—	15	1	4	3
(*e*) Other affections of the Eye	—	18	—	18	1	758	786
86. Affections of the Ear or Mastoid Sinus	1	31	2	32	3	799	644
Carried forward	91	1,688	112	1,779	109	22,689	21,788

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1936—*contd.*

Diseases	In-Patients					Out-Patients	
	Remaining in Hospital at end of 1935	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1936	Male	Female
		Admissions	Deaths				
Brought forward	91	1,688	112	1,779	109	22,689	21,788
IV. AFFECTIONS OF THE CIRCULATORY SYSTEM.							
87. Pericarditis	—	3	1	3	—	6	10
88. Acute Endocarditis or Myocarditis	1	—	—	1	—	48	59
89. Angina Pectoris	1	1	—	2	—	21	3
90. Other Diseases of the Heart :—							
(*a*) Valvular :—							
Mitral	1	22	6	23	—	76	102
Aortic	—	—	—	—	—	8	10
Tricuspid	—	—	—	—	—	9	4
Pulmonary	—	—	—	—	—	—	—
(*b*) Myocarditis	1	17	3	18	1	159	167
91. Diseases of the Arteries :—							
(*a*) Aneurism	—	—	—	—	—	4	5
(*b*) Arterio-Sclerosis	—	8	—	8	—	372	333
(*c*) Other diseases	—	1	—	1	—	—	4
92. Embolism or Thrombosis (non-cerebral)	—	—	—	—	—	—	—
93. Diseases of the Veins :—							
Hæmorrhoids	—	12	—	12	—	169	89
Varicose Veins..	—	9	—	9	—	75	38
Phlebitis	—	—	—	—	—	7	16
94. Diseases of the Lymphatic System :-							
Lymphangitis	—	12	—	12	—	85	79
Lymphadenitis Bubo (non-specific)	—	11	—	11	4	77	30
95. Hæmorrhage of undetermined cause	1	2	—	3	—	64	56
96. Other affections of the Circulatory System	—	—	—	—	—	14	3
V. AFFECTIONS OF THE RESPIRATORY SYSTEM.							
97. Diseases of the Nasal Passages :—							
Adenoids	—	17	—	17	—	106	95
Polypus..	1	3	—	4	—	12	2
Rhinitis..	—	5	—	5	—	155	99
Coryza	—	2	—	2	—	884	461
98. Affections of the Larynx :—							
Laryngitis	—	2	—	2	—	90	54
99. Bronchitis :—							
(*a*) Acute	1	80	3	81	2	1,631	1,342
(*b*) Chronic	—	23	3	23	—	1,062	918
100. Broncho-Pneumonia	5	30	6	35	—	80	75
101. Pneumonia :—							
(*a*) Lobar	—	67	14	67	2	121	55
(*b*) Unclassified	—	10	3	10	1	14	1
102. Pleurisy, Empyema	1	45	3	46	3	112	75
103. Congestion of the Lungs	—	2	1	2	—	6	2
104. Gangrene of the Lungs	—	—	—	—	—	—	—
105. Asthma	—	27	3	27	—	307	198
106. Pulmonary Emphysema	—	1	—	1	—	15	2
107. Other affections of the Lungs :—							
Pulmonary Spirochætosis ..	—	2	1	2	1	2	—
VI. DISEASES OF THE DIGESTIVE SYSTEM							
108. A.—Diseases of the Teeth or Gums	—	—	—	—	—	—	—
Caries, Pyorrhœa, etc. ..	—	3	—	3	—	1,550	1,387
B.—Other affections of the Mouth :-							
Stomatitis	—	1	—	1	—	105	94
Glossitis, etc.	—	2	—	2	—	11	11
Carried forward	104	2,108	159	2,212	123	30,146	27,667

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1936—*contd.*

Diseases	In-Patients					Out-Patients	
	Remaining in Hospital at end of 1935	Yearly Total Admissions	Yearly Total Deaths	Total Cases treated	Remaining in Hospital at end of 1936	Male	Female
Brought forward	104	2,108	159	2,212	123	30,146	27,667
VI. Diseases of the Digestive System—*continued.*							
109. Affections of the Pharynx or Tonsils :—							
Tonsilitis	—	50	—	50	2	501	432
Pharyngitis	—	—	—	—	—	—	—
110. Affections of the Oesophagus ..	—	—	—	—	—	—	—
111. A.—Ulcer of the Stomach ..	1	20	4	21	1	83	39
B.—Ulcer of the Duodenum ..	—	5	1	5	—	26	2
112. Other affections of the Stomach :—							
Gastritis	—	129	1	129	—	1,248	1,708
Dyspepsia, etc.	—	39	—	39	—	1,509	2,151
113. Diarrhœa and Enteritis :—							
Under two years	—	6	1	6	—	768	579
114. Diarrhœa and Enteritis :—							
Two years and over	1	75	2	76	—	973	855
Colitis	1	27	—	28	—	310	268
Ulceration	—	—	—	—	—	—	—
114*a*. Sprue	—	—	—	—	—	—	—
115. Ankylostomiasis	—	—	—	—	—	—	—
116. Diseases due to Intestinal Parasites:							
(*a*) Cestoda (Tænia)	—	4	—	4	—	31	25
(*b*) Trematoda (Flukes) ..	—	—	—	—	—	—	—
(*c*) Nematoda (other than Ankylostoma) :—							
Ascaris	—	—	—	—	—	92	105
Trichocephalus dispar ..	—	—	—	—	—	—	—
Trichina	—	—	—	—	—	—	—
Dracunculus	—	—	—	—	—	—	—
Strongylus	—	—	—	—	—	—	—
Oxyuris	—	—	—	—	—	98	119
(*d*) Coccidia	—	—	—	—	—	—	—
(*e*) Other parasites	—	—	—	—	—	—	—
(*f*) Unclassified	—	4	—	4	—	—	—
117. Appendicitis	6	393	2	399	8	345	423
118. Hernia	2	244	13	246	6	506	108
119. A.—Affections of the Anus Fistula, etc.	—	—	—	—	—	—	—
B.—Other affections of the Intestines :—							
Enteroptosis	—	—	—	—	—	4	17
Constipation	—	35	1	35	—	847	1,068
120. Acute Yellow Atrophy of the Liver	—	—	—	—	—	—	—
121. Hydatid of the Liver	1	13	1	14	1	14	11
122. Cirrhosis of the Liver :—							
(*a*) Alcoholic	—	1	—	1	—	7	5
(*b*) Other forms	—	6	1	6	—	7	5
123. Biliary Calculus	1	5	1	6	—	11	14
124. Other affections of the Liver :—							
Abscess	—	—	—	—	—	1	—
Hepatitis	—	12	1	12	—	159	148
Colecystitis	—	19	—	19	4	46	120
Jaundice	—	11	2	11	—	72	45
125. Diseases of the Pancreas	—	—	—	—	—	1	—
126. Peritonitis (of unknown cause) ..	—	9	5	9	2	10	6
127. Other affections of the Digestive System	—	3	1	3	—	6	7
Carried forward	117	3,218	196	3,335	147	37,821	35,927

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1936—*contd.*

Diseases	In-Patients					Out-Patients	
	Remaining in Hospital at end of 1935	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1936	Male	Female
		Admissions	Death				
Brought forward	117	3,218	196	3,335	147	37,821	35,927
VII. DISEASES OF THE GENITO-URINARY SYSTEM (NON-VENEREAL).							
128. Acute Nephritis	—	29	5	29	1	161	187
129. Chronic	1	25	1	26	2	152	223
130. A.—Chyluria	—	—	—	—	—	—	—
B.—Schistosomiasis	—	—	—	—	—	—	—
131. Other affections of the Kidneys :—							
Pyelitis, etc.	—	21	2	21	—	49	100
132. Urinary Calculus	1	25	—	26	1	69	107
133. Diseases of the Bladder :—							
Cystitis	—	24	1	24	1	116	99
134. Diseases of the Urethra :—							
(*a*) Stricture	3	10	—	13	1	38	1
(*b*) Other	—	12	—	12	2	11	5
135. Diseases of the Prostate :—							
Hypertrophy	—	1	—	1	—	14	—
Prostatitis	—	19	1	19	—	53	—
136. Diseases (non-Venereal) of the Genital Organs of Man :—							
Epididymitis	—	29	—	29	1	26	—
Orchitis..	—	13	—	13	—	55	—
Hydrocele	—	16	—	16	—	65	—
Ulcer of Penis	—	3	—	3	—	19	—
137. Cysts or other non-malignant Tumours of the Ovaries ..	1	18	—	19	—	—	14
138. Salpingitis :—							
Abscess of the Pelvis	2	45	2	47	3	—	127
139. Uterine Tumours (non-malignant)	—	31	1	31	1	—	32
140. Uterine Hæmorrhage (non-puerperal)	—	66	—	66	—	—	313
141. A.—Metritis	2	98	1	100	1	—	496
B.—Other affections of the Female Genital Organs :—							
Displacements of Uterus ..	—	4	—	4	—	—	40
Amenorrhœa	—	3	—	3	—	—	111
Dysmenorrhœa..	—	1	—	1	—	—	178
Laucorrhœa	—	—	—	—	—	—	40
142. Diseases of the Breast (non-puerperal :—							
Mastitis	1	28	—	29	—	—	153
Abscess of Breast	5	10	—	15	—	—	14
VIII. PUERPERAL STATE.							
143. A.—Normal Labour	21	531	1	552	14	—	53
B.—Accidents of Pregnancy :—							
(*a*) Abortion	5	124	4	129	3	—	80
(*b*) Ectopic Gestation.. ..	—	—	—	—	—	—	—
(*c*) Other accidents of Pregnancy	1	28	—	29	3	—	239
144. Puerperal Hæmorrhage	—	10	1	10	—	—	11
145. Other accidents of Parturition ..	—	10	1	10	—	—	10
146. Puerperal Septicæmia	—	23	7	23	3	—	4
147. Phlegmasia Dolens..	1	—	—	1	—	—	—
148. Puerperal Eclampsia	—	—	—	—	—	—	1
149. Sequelæ of Labour..	—	—	—	—	—	—	7
150. Puerperal affections of the Breast	—	—	—	—	—	—	5
Carried forward	161	4,475	224	4,636	184	38,649	38,577

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1936—*contd.*

Diseases	In-Patients					Out-Patients	
	Remaining in Hospital at end of 1935	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1936	Male	Female
		Admissions	Deaths				
Brought forward	161	4,475	224	4,636	184	38,649	38,577
IX. AFFECTIONS OF THE SKIN AND CELLULAR TISSUES.							
151. Gangrene	2	11	6	13	1	12	7
152. Boil :—							
Carbuncle	—	41	—	41	—	1,211	793
153. Abscess :—							
Whitlow	4	52	—	56	1	494	278
Cellulitis	6	185	3	191	7	464	265
154. A.—Tinea	—	11	—	11	—	154	95
B.—Scabies	—	18	—	18	—	1,331	1,069
155. Other Diseases of the Skin :—							
Erythema	—	8	—	8	1	291	233
Urticaria	—	5	—	5	1	246	273
Eczema	1	16	—	17	—	766	657
Herpes	—	—	—	—	—	132	75
Psoriasis	—	—	—	—	—	114	50
Elephantiasis	—	—	—	—	—	2	—
Myiasis	—	—	—	—	—	—	—
Chigoes	—	—	—	—	—	2	—
Cutaneous Leishmaniasis ..	—	—	—	—	—	—	1
X. DISEASES OF BONES AND ORGANS OF LOCOMOTION (OTHER THAN TUBERCULOUS).							
156. Diseases of Bones :—							
Osteitis	1	28	1	29	4	52	25
157. Diseases of Joints :—							
Arthritis	2	19	1	21	1	295	282
Synovitis	—	6	—	6	—	12	13
158. Other Diseases of Bones of Organs of Locomotion	3	37	—	40	1	169	230
XI. MALFORMATIONS.							
159. Malformations :—							
Hydrocephalus	—	—	—	—	—	—	—
Hypospadias	—	—	—	—	—	3	—
Spina Bifida, etc.	—	2	—	2	—	3	6
Other malformations	—	8	1	8	—	17	5
XII. DISEASES OF INFANCY.							
160. Congenital Debility	—	1	1	1	—	17	20
161. Premature Birth	—	1	1	1	—	—	—
162. Other affections of Infancy ..	—	2	—	2	—	5	2
163. Infant neglect (infants of three months or over)	—	—	—	—	—	—	—
XIII. AFFECTIONS OF OLD AGE.							
164. Senility :—							
Senile Dementia	—	2	—	2	1	5	23
XIV. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.							
165. Suicide by Poisoning	—	—	—	—	—	—	—
166. Corrosive Poisoning (intentional) ..	—	—	—	—	—	—	—
167. Suicide by Gas Poisoning ..	—	—	—	—	—	—	—
168. Suicide by Hanging or Strangulation	—	—	—	—	—	—	1
169. Suicide by Drowning	—	—	—	—	—	1	—
170. Suicide by Firearms	—	—	—	—	—	—	—
171. Suicide by cutting or stabbing Instruments	—	—	—	—	—	—	—
172. Suicide by jumping from a height	—	—	—	—	—	—	—
173. Suicide by crushing	—	—	—	—	—	—	—
174. Other Suicides	—	—	—	—	—	1	—
Carried forward	180	4,928	238	5,108	202	43,448	42,980

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1936—*contd.*

Diseases	In-Patients					Out-Patients	
	Remaining in Hospital at end of 1935	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1936	Male	Female
		Admissions	Deaths				
Brought forward	180	4,928	238	5,108	202	43,448	42,980
XIV. Affections produced by External Causes—*contd.*							
175. Food Poisoning :—							
Botulism	—	6	—	6	1	8	8
176. Attacks of poisonous animals :—							
Snake Bite	—	8	—	8	—	4	4
Insect Bite	—	3	—	3	—	11	2
177. Other accidental Poisonings	—	10	—	10	1	6	3
178. Burns (by Fire)	—	20	3	20	3	133	84
179. Burns (other than by Fire)	—	17	—	17	1	40	37
180. Suffocation (accidental)	—	—	—	—	—	2	—
181. Poisoning by Gas (accidental)	—	—	—	—	—	—	—
182. Drowning (accidental)	—	—	—	—	—	1	2
183. Wounds (by Firearms, war excepted)	2	4	1	6	1	6	1
184. Wounds (by cutting or stabbing Instruments)	3	217	4	220	5	948	352
185. Wounds (by fall)	1	80	—	81	—	703	332
186. Wounds (in Mines or Quarries)	—	—	—	—	—	35	7
187. Wounds (by Machinery)	—	4	—	4	—	7	—
188. Wounds (crushing, *e.g.* railway accidents, etc.)	—	10	—	10	—	26	4
189. Injuries inflicted by Animals, Bites, Kicks, etc.	—	7	—	7	—	119	50
190. Wounds inflicted on Active Service	—	—	—	—	—	—	—
191. Executions of civilians by belligerents	—	1	—	—	—	—	—
192. A.—Over fatigue	—	3	—	3	—	—	—
B.—Hunger or Thirst	—	—	—	—	—	—	—
193. Exposure to Cold, Frost bite, etc.	—	—	—	—	—	73	39
194. Exposure to Heat :—							
Heatstroke	—	—	—	—	—	—	—
Sunstroke	—	—	—	—	—	1	1
195. Lightning Stroke	—	—	—	—	—	—	—
196. Electric Shock	—	—	—		—	—	—
197. Murder by Firearms	—	—	—	—	—	—	—
198. Murder by cutting or stabbing Instruments	—	—	—	—	—	2	1
199. Murder by other means	—	—	—	—	—	—	—
200. Infanticide (Murder of an infant under one year)	—	—	—	—	—	—	—
201. A.—Dislocation	—	37	1	37	1	63	24
B.—Sprain	—	15	—	15	—	95	33
C.—Fracture	17	209	12	226	13	194	133
202. Other external Injuries	1	283	3	284	—	1,749	703
203. Deaths by Violence of unknown cause	—	—	—	—	—	—	—
XV. Ill-defined Diseases.							
204. Sudden Death (cause unknown)	—	—	—	—	—	—	—
205. A.—Diseases not already specified or ill-defined :—							
Ascites	—	25	—	25	5	46	39
Oedema	—	1	—	1	—	7	4
Asthenia	—	30	—	30	—	295	381
Shock	—	8	2	8	3	80	70
Hyperpyrexia	—	12	2	12	—	—	—
B.—Malingering	—	1	—	1	—	—	—
XVI. Diseases, the total of which have not caused ten Deaths	—	—	—	—	—	—	—
Total	204	5,935	266	6,139	236	48,102	45,294